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POLITICAL AND POPULATION SURVEY

ESTONSKAYA SSR

NO.117

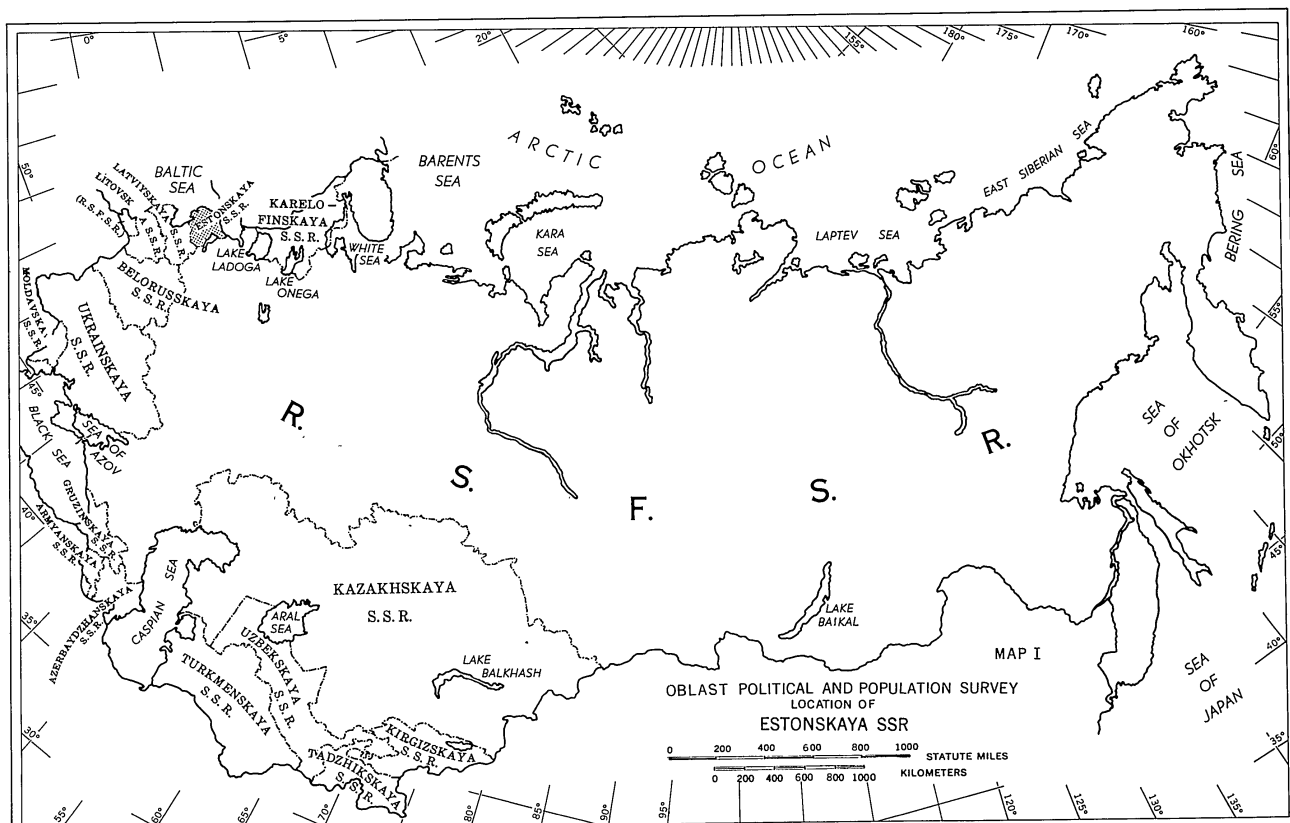
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Statistics

Area in Sq. Miles	17,413
Total Est. 1959 Pop	1,181,000
Urban	642,000
Rural	539,000
Cities	6
(Tallin, Kokhtla-Yarve, Narva, Pyarnu, Sillamyae, Tartu)	
Towns	29
Urban settlements	26
Rural rayons	37
Urban rayons (Tallin)	3
Selsoverts	320
Administrative areas	6

I. Government ControlsA. General

Estonskaya SSR (ESSR) is one of the Soviet Union's 15 union republics. Its population of 1,181,000 (1959 estimate) constitutes 0.6 per cent of the USSR population; the land area of the republic represents 0.2 per cent of total land area within the Soviet Union.

From the early part of the 18th century until World War I, Estonia was under the domination of Tsarist Russia. Following a 20-year period between World Wars as an independent republic, the country was first established as one of the Soviet republics by forcible annexation in August 1940. Then the Germans forced the Russians out and occupied the territory from 1941 to 1944. With the defeat of Germany, the Soviets re-occupied Estonia in September 1944 and reconstituted the Estonskaya Soviet Socialist Republic, headed by the short-lived prewar Communist-oriented government. Great Britain, the United States, and most other western countries have never accorded de jure recognition to the Soviet incorporation of Estonia, along with the other Baltic republics, Latvia and Lithuania.

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It was some time before the administrative-territorial divisions of oblast and rayon were substituted for the uyezd-volost divisions which had been carried over into independent Estonia from Tsarist times. Only toward the end of 1950, when the Soviet position had been consolidated and collectivization was essentially complete, were the uyezds and volosts abolished and the more centralized and economically integrated rural rayon administrative units introduced. The oblast system of government, which was attempted with the creation of 3 oblasts in 1952, was abandoned a year later as too unwieldy and uneconomical for such a small area.

Two territorial changes were made in the republic in 1945. The Petseri (now Pechory) district, which has a predominantly Russian population, was separated from Estonskaya SSR and annexed to Pskovskaya Oblast, RSFSR, and a narrow strip on the right bank of the Narva River in the NE, also with a predominantly Russian population, became part of Leningradskaya Oblast, RSFSR. A minor boundary change occurred in September 1957 with an exchange of 2 small areas of territory between Ryapinaskiy Rayon and Pskovskaya Oblast. No urban areas were involved in the transfer and the shift of rural populations was probably negligible.

In the fall of 1957, 2 rayons were abolished. The territory of Loksaskiy Rayon was divided between Kharyuskiy and Rakvereskiy Rayons. The entire territory of Pyarnuskiy Rayon became an administrative area subordinated directly to the Pyarnu City Executive Committee. The 5 other administrative areas comprise the rural environs of the major urban centers (Tallin, Kokhtla-Yarve, Sillamyae, Narva, and Tartu) and are also subordinate to the respective city executive committees. The Narva Administrative Area was formerly much larger and included the then urban settlement of Sillamyae. The latter has now been raised to the status of a city of republic subordination. A major function of the administrative areas is the provision of agricultural products for their metropolitan centers. Probably some rural mining activity occurs in the administrative areas of the shale basin in the NE.

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USSR central government agencies exercise direct control over operations within the republic which bear specifically on national security. Military and naval operations are directed by USSR commands in Riga (Latviyskaya SSR) and Baltiysk (Kaliningradskaya Oblast), respectively. Rail and maritime transport, transport construction, foreign affairs, and major aspects of internal security, telecommunications, and industrial production for defense are controlled by All-Union ministries in Moskva. Union republic ministries in Moskva, responsible for over-all economic planning, supervise their respective subordinate ministries or other agencies in Estonskaya SSR in respect to the conduct of agriculture, communications, cultural affairs, finance, higher education, public health programs, and trade. Republic government organs directly control the bulk of industrial production and virtually all capital construction (excluding construction of rail and port facilities), have primary responsibility for providing the population with food, most housing, local transport and roads, general educational facilities, and municipal services, and are charged with the administration of justice and of social welfare programs.

Until the Soviet Union reorganization of the administration of industry and construction in 1957, republic government organs had no jurisdiction over heavy industry or other industrial enterprises and operations of significance to the national economy. As of 1 July 1957, the Estonskaya SSR was established as one economic administrative region. Under the sweeping decentralization, aimed at increasing the efficiency and volume of industrial production, working responsibility for many spheres of industrial and construction activity was transferred to local control, and the scope of independent action and the responsibility of the Estonian government in directing the republic economy were thus substantially expanded.

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B. Control Groups

The Estonskaya SSR control force is estimated to total 105,500 (see Table I), comprising 0.9 per cent of the total USSR control force and 8.9 per cent of the Estonian population. It includes those who direct, supervise, and coordinate the activities of the republic population, whether by virtue of administrative or military rank, by employment, or by professional activity. It is composed of 4 major groups-- Communist Party, civil government, military, and economic. Each of these includes 3 levels of responsibility, primary, intermediate, and lower.

TABLE I

ESTIMATED REPUBLIC CONTROL FORCE: 1959

<u>Category</u>	<u>Primary</u>	<u>Intermediate</u>	<u>Lower</u>	<u>Total</u>	<u>Per Cent of Total</u>
Communist Party	neg.	600	2,000	2,600	2.5
Civil government	neg.	5,200	17,600	22,800	21.6
Military	200	14,700	22,600	37,500	35.5
Economic	300	1,400	40,900	42,600	40.4
Total	500	21,900	83,100	105,500	100.0

The primary control force includes local representatives of USSR Party and government agencies, flag and general officers of the armed forces and security agencies, and members of the central apparatus of the Estonskaya SSR Council of National Economy (Sovnarkhoz). In the intermediate control force are members of the republic Party and government apparatus, city Party and executive committees, field and company grade military and security officers, and personnel of economic agencies above the plant or enterprise level, such as employees of the Sovnarkhoz branch directorates and trusts. The lower control force comprises the full-time Party workers in rayon Party committees, members of the rayon and rural soviets, NCOs, supervisory personnel within economic enterprises

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and public institutions, and clerical aides of control force supervisory-administrative personnel at all levels.

1. Communist Party and Komsomol

The Estonian Communist Party is the medium through which the USSR Communist Party maintains control over the republic. Under close supervision of the USSR Party Central Committee in Moskva, the Estonian Communist Party Central Committee in Tallin directs the activities of the estimated 172,400 Party and Komsomol members in Estonia. Membership in either the Party or Komsomol is held by 146 out of every 1,000 of the population; in the military, an estimated 77 per cent are either Party or Komsomol members.

The Bureau of the Central Committee of the Estonian Communist Party is the chief policy-making body in the republic. Its members hold the highest and most important positions in the government, military, and economic control apparatus. The Secretariat of the Central Committee is the highest operational control agency of the Party. Its production-branch departments supervise the work of the lower government, internal security, and economic agencies in the republic through control of the Party units formed in these agencies. Representatives of the Secretariat are attached to all city, town, and rural rayon Party Committees to check on the political reliability of leading Party, security, and government personnel. The local Party Committees supervise the work of the Party Primary Organizations--the basic units of Party control--which are established in most organizations, enterprises, and agencies. Party Primary Organizations in Army, Navy, and Air Force units and MVD militarized formations and KGB border guard units are completely independent of local Party authorities and are subordinate, through their respective chains of command, to the USSR Party Secretariat.

Party membership in the Estonskaya SSR as of January 1959 (see Table II) is estimated to total 47,400, or 4 per cent of the population, about average for the USSR (3.9 per cent). The estimated 2,600

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TABLE II
GROWTH OF COMMUNIST PARTY
1949-1959

<u>Year</u>	<u>Total</u>	<u>Civilian</u>	<u>Military and MVD/KGB</u>	<u>Military as Per Cent of Total</u>
1949	39,920	25,328	14,592	36.6
1951	37,250	28,000	9,250	24.8
1952	40,471	31,000	9,471	23.4
1954	40,464	31,453	9,011	22.3
1956	40,553	32,178	8,375	20.7
1957	40,900	32,500	8,400	20.5
1959	47,400	na	na	na

full-time Party employees in Estonia (5.5 per cent of Party membership) comprise the Party control force, which holds the nucleus of power in the republic. A few local representatives of the USSR Party Central Committee are attached to the republic Party Committee, but their number is negligible. Approximately 600 of the Party control force are members of the republic and city Party committees, while the bulk, about 2,000, comprise the full-time Party workers in rayon Party committees. Through these professional Party workers are channeled the Central Party directives which are binding on all republic Party organs and personnel.

Membership remained relatively stable in the postwar years up to 1957; however, during this period some changes occurred in the internal composition of the Party. Between 1949 and 1952, the civilian membership rose by about 22 per cent, while military membership, which had constituted over one third of the total, declined by approximately 35 per cent. The decrease in the number of Communists in the military corresponds roughly to the decrease in over-all troop strength in the republic during the same 3-year span. From 1952 to 1957, civilian membership increased 4.8 per cent, while Party membership among the military decreased by 11.3 per cent. Since 1957, total membership has increased 15.9 per cent. No information is available on the current

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proportion of military in the Party; however, it has probably not increased and may have declined further.

At the time of the first Soviet occupation in 1940 there were reportedly only 2,000 Communists in Estonia. The 5th Estonian Party Congress in 1948, which announced a total civilian membership of 25,300 claimed that approximately 20 per cent of the members had been recruited prior to 1940, indicating that there must have been approximately 3,000 members of the Estonian Communist Party in the Soviet Union, probably Estonian expatriates. Approximately one-third of the members were alleged to have entered the Party during the war, between 1940 and 1944, probably for the most part Estonian draftees in the Soviet Army and possibly to some extent national partisan groups opposing German occupation. The greatest proportion entered the Party between 1945 and 1947 during a period of consolidation of the Soviet position, with an influx of Russian administrative and occupation personnel and of repatriated Estonians who had been reared and trained in the Soviet Union. The Estonian Party Central Committee continued to be dominated in the postwar years by Russians and Russian-Estonians, but following the death of Stalin in 1953 a tendency toward the gradual increase in the number of Estonians represented on the Committee was manifest. All of the Party members in the military are non-Estonians from other areas of the USSR, and it can be assumed that a substantial proportion of the civilian Party membership is still Russian and Russian-Estonian.

At the 9th Party Congress in January 1956, criticism was expressed that too few new members had joined the Party and that the numbers of Komsomols and Pioneers was only slowly increasing. These complaints seemed to indicate either some reluctance on the part of the population to identify with the Soviet regime through its control apparatus or possibly the unavailability in sufficient numbers of reliable prospective Party workers. The recent increases in Party membership may reflect a positive response to the greater prestige and economic

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possibilities attendant upon decentralization policies and the encouragement of Estonians to greater participation in Party and economic activity.

Expansion of Party control in the mid-1950s was indicated by the increase from 73 to 85 in the number of members of the Estonian Party Central Committee elected at the 9th Party Congress in 1956. Candidate members of the Committee numbered 29 instead of the former 21, and the review committee, elected at the same time, comprised 17 members compared to the previous 13. The occupational composition of the new Committee members was reported as follows: 13 full-time Party functionaries; 17 Estonian Ministers and/or their immediate deputies; 20 secretaries of rural rayon Party committees; 3 military men; 5 factory managers; 3 scientists and teachers; 2 chairmen of local Executive Committees; 2 composers and writers; 2 newspaper editors; 3 secretaries of Party Primary Organizations; 4 collective farm chairmen; 2 workers; one public prosecutor; one trade union official; one Komsomol functionary; and 6 of unknown profession. Long-standing complaints that the Party contained too large a proportion of employees and too small a share of workers and peasants seemed to be borne out, at least on the higher level.

A standard target for Party propagandists has been the consistently low numbers of Party members found among the rural population. In 1954 only an estimated 1.4 per cent of the rural agricultural labor force, or 4,800 workers, were members of the Communist Party, compared to the USSR average of 2.4 per cent. In 1954, it was reported that only 15.1 per cent of all republic Communists were employed on state and collective farms and at machine tractor stations (MTS) and mechanized melioration stations (MMS). (This figure does not include Party members working at rural rayon institutions and industrial enterprises.) By 1956, the 9th Party Congress reported that 42 per cent of all Communists in Tartuskiy Rayon were working on state and collective farms and at MTS. Some

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increased participation of Party members in the rural labor force is certainly taking place following Soviet pressure in recent years to raise agricultural output, a goal necessitating stronger local Party controls. Soviet policy of urging Party members out of administrative agencies and into key agricultural positions and production has probably contributed to increased Party activity on worker levels in industry as well as agriculture.

Komsomol, composed of youths aged 15 to 28, is the Party's most important auxiliary. Membership in the Estonskaya SSR, estimated to total 125,000, constitutes an incidence of 106 per 1,000 of the total population, compared to 88 per thousand for the USSR as a whole. This high incidence is attributable to the large numbers of Komsomol among the armed forces and MVD/KGB troops, estimated at 61,000, or 48.8 per cent of total Komsomol membership in the republic and 71.8 per cent of the total military. In 1957, Estonskaya SSR shared with the Latviyskaya and Litovskaya SSRs the distinction of having the highest proportion of Komsomols in the military--more than twice that of any of the other republics. At the same time, Party criticism is consistently directed at the slow growth of civilian membership in the Komsomol and the children's Pioneer organization.

Komsomol constitutes a reservoir from which future Party members are selected and trained and serves as a tool for the organization and indoctrination of youth for general service to the regime. It is responsible for promoting the fulfillment of Party and government directives in all spheres, particularly industry, construction, paramilitary training, education, and agriculture. The work of each Komsomol unit is supervised by the Party unit at the same administrative-territorial level. Komsomol directs the activities of the younger Pioneers, a Party organization composed of children and adolescents aged 10 to 16, and the Little Octobrists for children aged 7 to 10.

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Komsomol is frequently called upon for volunteers to projects in the republic and in other areas of the USSR, such as the virgin lands program in Siberia and Central Asia. In recent years many have signed 2-year contracts to work on farms in Altayskiy Kray or have volunteered to help with the harvests in Kazakhskaya SSR. Others have joined in construction of the new Baltic thermal power plant near Narva.

2. Military

Military and naval units in Estonskaya SSR (refer to Map IV) are subordinate to various headquarters in Baltiysk (Kaliningradskaya Oblast), Riga (Latviyskaya SSR), and Moskva. All fleet operations and personnel in Estonia are controlled by Hq., Soviet Baltic Fleet, in Baltiysk. Military and tactical air operations of the Soviet Army and Air Force, directed until recently from Leningrad by Hq., Leningrad Military District, are now controlled by Hq., Baltic Military District in Riga. This headquarters also exercises supervisory control over some elements of land-based naval personnel. Tactical air units are directly subordinate to the 13th Tactical Air Army Hq., in Riga, under the Military District Hq., Long Range Air Army (LRAA) units in Estonia are under the jurisdiction of the U/I Long Range Air Corps, with headquarters at Tartu. This headquarters command, directly subordinate for operational matters to Hq., Long Range Aviation, of the USSR Ministry of Defense, directs strategic air operations in the Baltic area, controlling a total of 91 aircraft. Under its jurisdiction are 3 jet medium bomber and tanker regiments, operating 68 aircraft; one propeller medium bomber regiment, operating 13 aircraft; and 10 propeller light transports.

Air Defense Command (PVO) personnel based in Estonia are subordinate to 2 different headquarters: the NW coastal area and islands from latitude 58-00 N to 60-15 N and from longitude 21-30 E to 25-30 E fall within the Baltic Fleet Air Defense District, with headquarters in Kaliningrad (Kaliningradskaya Oblast); the rest of the republic is part of the Leningrad Air Defense District, with headquarters in Leningrad.

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These districts control operation of fighter aviation and antiaircraft artillery units deployed within their respective areas of jurisdiction.

KGB border units are subordinate to Hq., Leningrad KGB Border District. Subordination of the MVD militarized security formations in the republic is not known.

The number of armed forces in Estonia is smaller than in any of the other administrative-territorial divisions of the Baltic Military District. However, almost two thirds of the Baltic Fleet personnel (including naval air force) are concentrated in the republic, as are almost one third of the total air force personnel of the Baltic Military District. In contrast, the proportion of Soviet Army and MVD/KGB personnel stationed in the republic is almost negligible (see Table III).

TABLE III

ESTIMATED COMPOSITION OF ARMED FORCES:
1959

<u>Branch of Service</u>	<u>Number</u>	<u>Per Cent of Republic Total</u>	<u>Per Cent of Total by Branch of Ser- vice in Baltic MD</u>
Navy (excl. Naval AF)	44,500	52.4	35.3
Naval AF	9,000	10.6	45.9
Air Force (excl. Naval AF)	19,000	22.3	30.6
Army and MVD/KGB	12,500	14.7	5.1
Total	85,000	100.0	18.9

The military control force in the republic is estimated at 37,500, representing 44 per cent of the total armed forces and 35.5 per cent of the total control force. Included in the military control force are approximately 200 flag and general officers of the armed forces and security agencies, 14,700 field and company grade military and security officers, and 22,600 noncommissioned officers. In 1956 approximately 77 per cent of the military were members of the Communist Party and Komsomol.

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A significant drop in the numbers of Soviet armed forces in the republic occurred between 1949, when there were an estimated 130,000, and 1952, when there were 95,000. Since then, the total has continued to decrease, though more gradually, to the present 85,000. The decline in over-all troop strength in Estonia may perhaps be attributed to the relative stability achieved by the Soviet regime following a period of elimination and mass deportation of unreliable elements and the importation of more loyal groups from other sections of the USSR. The consequent lowering of requirements for close military supervision and security measures would have made possible the redeployment of troops to more critical areas. It has been reported that few Estonians have served in the Soviet armed forces within the Estonskaya SSR, a situation in accordance with historic Soviet practice of assigning non-Russian minorities to military service outside their native areas. Token Estonian units said to have been stationed for a time in the republic were reportedly dissolved after the outbreaks in the Soviet satellite states in 1956.

The greatest concentration of military personnel in the republic is in the Tallin-Paldiski area, the location of the 2 naval bases, a large number of airfields, and the bulk of the army units. Air force and air defense personnel are stationed throughout the republic, particularly along the coasts in the N and W, and on Sarema Island and the other islands where numerous antiaircraft artillery and radar installations are located. MVD internal security troops are stationed at Tallin and probably along the railroads. KGB border guards patrol the coastline and the island areas.

Formerly, the Baltic Fleet was divided into 2 components: the Soviet Eighth (North Baltic) Fleet, with headquarters at Tallin, and the Soviet Fourth (South Baltic) Fleet, with headquarters at Baltiysk. These 2 fleets are now merged into one, with headquarters at Baltiysk. The North Baltic Squadron of the Baltic Fleet is based at Tallin. The coastal

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borders of Estonskaya SSR fall within 2 Naval Defensive Districts: the Tallin District (headquarters in Tallin), from Kunda approximately to Khaapsalu (western border indefinite), and the Island District (headquarters unlocated), which includes Sarema and Khiuma Islands and the coast approximately from Khaapsalu to latitude 57°. These districts, analogous to US Naval Sea Frontiers, are responsible to the Fleet Commander for administration of their respective areas.

Tallin is the principal port and naval base in the northern part of the Baltic Military District, accommodating destroyers, submarines, gunboats, torpedo boats, and patrol craft. The naval base provides complete logistic and operational support to a large number of submarines and to a major segment of the Baltic Fleet. The Tallin Naval Defensive District directly controls the operation of the shipyard at the Tallin naval base and supervises the fulfillment of naval shipbuilding and repair requirements at 2 other shipyards in Tallin. One of these is capable of construction and major hull and engine repairs on ships up to destroyer size. (The Tallin shipyards represent 7.4 per cent of the total USSR capacity for ship repair.) Tallin is also a naval training center for the Baltic Fleet, with a naval infantry school, an officers' specialist school, and an EM training detachment. All types of naval supplies, including ammunitions, mines, and torpedoes, are stored at Tallin, probably in significant quantities. POL storage in the city is estimated to be 37,000 m.t., with at least 30 storage tanks scattered throughout the port. Underground storage facilities probably also exist. Covered storage is estimated to exceed one million sq. ft., with supplies in general being adequate to sustain operations for at least 30 days.

The secondary naval operating base at Paldiski provides limited logistic and operational support to a limited number of light surface forces and potentially to submarines.

Air fields in the republic (see Table IV) number 26, including 6 seaplane stations. Of the total, 14 airfields are operated by the

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Soviet Air Force, 8 by the Naval Air Force, and 4 military/civil fields are operated jointly by SAF and/or SNAF and the Civil Air Fleet Directorate. Air Command Control Centers are located at Tartu (long range capability) and at Tallin (air defense capability and medium range attack capability).

TABLE IV
LIST OF AIRFIELDS: 1958

<u>Airfield</u>	<u>Class</u>	<u>Target Number</u>	<u>User</u>	<u>Type</u>
Tartu	1	0153-8121	SAF Civil	Primary bomber base.
Aste	2	0153-8101	SAF	Primary defense base.
Haapsalu (Khaapsalu)	2	0153-8023	SAF	Primary defense base.
Kuusiku	2	0153-8092	SAF	Primary defense base.
Monnuste	2	0153-8105	SAF	Primary defense base.
Parnu (Pyarnu)	2	0153-8083	SNAF	Alternate bomber base.
Tallinn/Lasnamae (Tallin)	2	0153-8116	SNAF Civil	Primary defense base.
Tallinn/Randvere (Tallin)	2	0153-8173	SAF	Construction began in October, 1957. Could be used as fighter base for protection of Tallin.
Tapa	2	0153-8120	SAF	Alternate defense base.
Vasalemma	2	0153-8082	SNAF	Alternate bomber base.
Voru (Vyrü)	2	0153-8162	SAF	Alternate defense base.
Rakvere	3	0153-8091	SAF	Primary defense base.
Vaana	3	0153-8167	SAF	Primary defense base.
Kuressaare	5	0153-8102	SAF Civil	Fighter recovery base.
Narva	5	0153-8068	SAF	"Other" base.
Parnu/Southeast (Pyarnu)	5	0153-8168	SAF	Probably training.

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TABLE IV (Continued)

<u>Airfield</u>	<u>Class</u>	<u>Target Number</u>	<u>User</u>	<u>Type</u>
Poltsamaa (Pyltsama)	5	0153-8087	SAF	"Other" base.
Tallin/Ulemiste (Tallin)	5	0153-8117	SAF SNAF Civil	Fighter recovery base.
Valga	5	0153-8129	SAF	"Other" base.
Vohma (Vykhma)	5	0153-8134	SAF	Fighter recovery base.
Tallinn (Tallin)	6	0153-8112	SNAF	Seaplane base.
Karu-Jarv	7	0153-8143	SNAF	Seaplane base.
Kihelkonna	7	0153-8608	SNAF	Seaplane base.
Paldiski	7	0153-8078	SNAF	Seaplane base.
Parnu (Pyarnu)	7	0153-8084	SNAF	Seaplane base.
Tallinn/Ulemiste	7	0153-8118	SNAF	Seaplane base.

Reported air force units in the republic include an U/I Jet Medium Bomber Division at Tartu, an U/I Jet Light Bomber Division at Pyarnu, an U/I Jet Fighter Division at Khaapsalu, and a possible U/I Jet Fighter Regiment at Kingisepp (Kuressaare).

The most important army command in Estonia is Hq., Tenth Guards Army, in Tallin. Subordinate to this headquarters, which was located until recently in Leningrad, are the 29th Guards Rifle Division at Tallin and the 8th Guards Rifle Division at Klooga. The coastal areas and offshore islands are heavily fortified, with various guided missile launching sites and numerous antiaircraft artillery units and radar installations. Guided missile bases are reportedly located at Tallin, Paldiski, Pyarnu, and Khaapsalu, and on Sarema, Khiuma, and Mukhu Islands. Antiaircraft artillery units are based at sites in Tallin (16), Paldiski

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(7), Kyardla, Klooga, Khaapsalu, and Pyarnu and at many of the coastal and island nonurban areas: Emmaste (58-42N; 22-37E), Magnusholm (58-04N; 24-03E), Osmussar (59-18N; 23-24E); Pammanna (58-37N; 22-35E), Poosapaa (59-13N; 23-32E), Rasr (58-20N; 21-59E and 58-20N; 21-58E), Sorve (57-55N; 22-05E, 57-55N; 22-06E, 57-55N; 22-05E, and 57-58N; 22-05E), Tahkuna (59-04N; 22-36E), Undva (58-29N; 21-59E), and Vormsi Saar (59-01N; 23-10E). Reportedly, few if any civilians still reside on the islands or are permitted to go there.

The only identified MVD troop unit in the republic is the 392nd MVD Regiment stationed at Tallin. MVD troops are responsible for the protection of high public officials, guarding of strategic facilities, and the supervision of forced labor. No KGB border guard units have been identified or located, but they undoubtedly are stationed in Tallin and Paldiski, along the coasts, and on the islands. They are responsible for patrolling the national borders to prevent escape by citizens or illicit entry of foreigners.

The Estonskaya SSR Society for Cooperation with Army, Air Force, and Navy (DOSAAF), located in Tallin, trains preinductees and veterans in an extensive program of basic and technical military skills in support of the military. Military mobilization and the movement and storage of military stockpiles are controlled by Military District Headquarters through Military Commissariats at the republic and local levels. The Estonskaya SSR Ministry of Defense, whose role is otherwise nominal, assists in the planning stages of mobilization.

3. Government

The Estonskaya SSR Council of Ministers (see Table V), directly responsible to the USSR Council of Ministers in Moskva, is the chief administrative and legislative agency in the republic. Its membership comprises the highest government officials, including a chairman and deputy chairmen, the heads of the 9 Estonian union republic ministries and 6 republic ministries, and the chairmen of certain agencies and committees directly attached to the Council. Directed by its Presidium, composed

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TABLE V

COMPOSITION OF REPUBLIC COUNCIL OF MINISTERS:
1959

Chairman
First Deputy Chairman
Deputy Chairmen

Chairmen of:

Committee of State Security (KGB)
Council of National Economy (Sovnarkhoz)
Scientific-Technical Committee
Soviet Control Commission
State Planning Commission

Union Republic Ministers of:

Agriculture
Communications
Culture
Defense
Finance
Foreign Affairs
Internal Affairs (MVD)
Public Health
Trade

Republic Ministers of:

Automotive Transport and Roads
Construction
Education
Justice
Local Economy
Social Security

Attached to Council of Ministers:

Republic Office of State Bank (Gosbank)
Republic Statistical Administration
Directorate of Grain Products
Directorate of River Transport
Directorate for Architectural Affairs
Other Directorates

primarily if not entirely of members of the Bureau of the Estonskaya SSR Communist Party Central Committee, the Council of Ministers operates through its subordinate agencies and through executive committees in the 6 cities of republic subordination, 29 towns, and 37 rural rayons to control almost all aspects of the republic economy.

The Estonskaya SSR Supreme Soviet, to which the Council of Ministers is nominally subordinate, is essentially a ratifying and policy-propagating organ for the Communist Party and government. Operating through the subordinate city, town, and rural rayon soviets, it is responsible for the mobilization of the population in support of state, military, and industrial projects, is the focal point for dissemination of political propaganda, and coordinates civil defense operations carried out by other agencies.

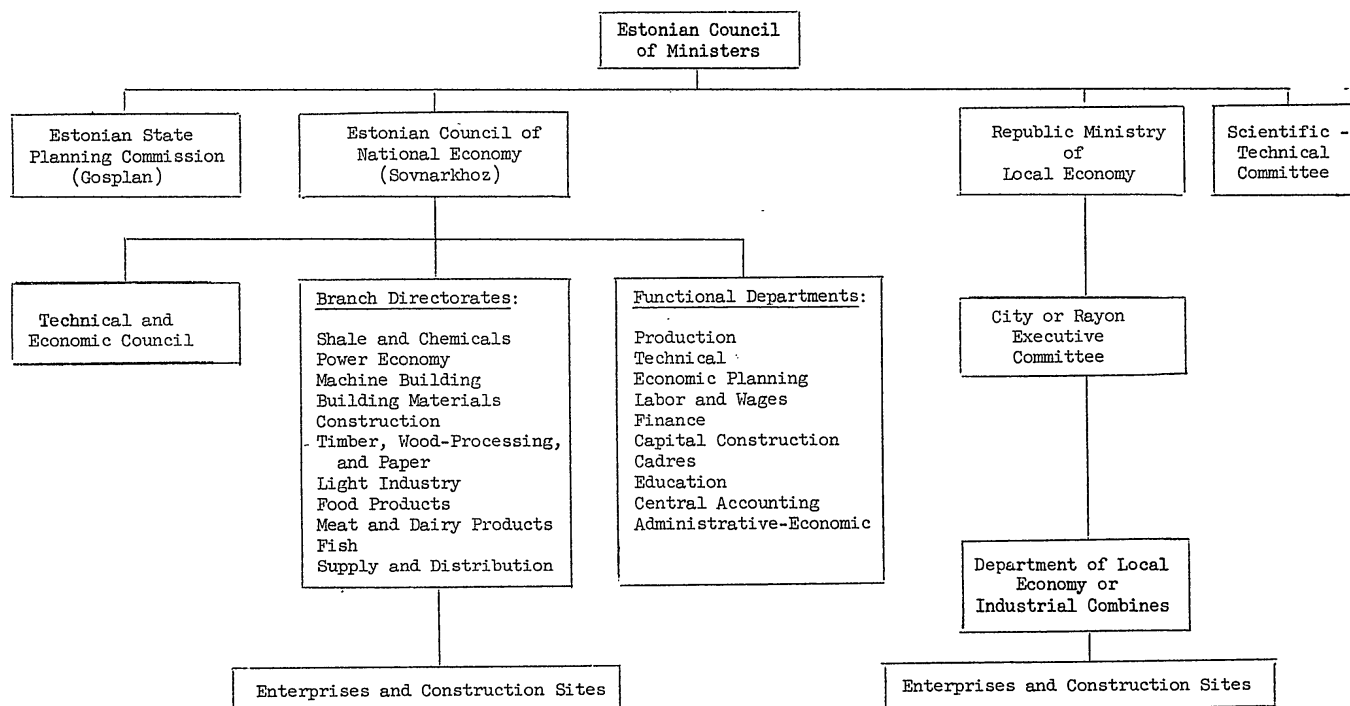
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The Estonskaya SSR Supreme Court is the republic's highest judicial body. With both original and appellate jurisdiction, it serves mainly to clarify the body of legislation drawn up by the USSR and Republic Councils of Ministers and ratified by the Supreme Soviets.

The important new Council of National Economy (Sovnarkhoz) (see Table VI), attached to the Estonskaya SSR Council of Ministers, has assumed most of the control and supervision of industry and construction within the republic which was formerly exercised by the abolished All-Union and union republic industrial ministries. The Council reportedly now controls approximately 78.5 per cent of republic total industrial output, more than 350 of the republic industrial enterprises, and all large construction organizations. About 145,000 workers and employees in Estonia, or about 42.9 per cent of republic total workers and employees, who form part of the total Republic labor force, come under its jurisdiction. Small local industries and construction offices are controlled by the city, town, and rayon executive committees, with over-all coordination and supervision by the Republic Ministry of Local Economy.

On the republic level, the state Planning Commission (Gosplan) and the Scientific-Technical Committee, guided by their counterpart bodies at the USSR level, stand in a consultative and advisory relation to the Council of Ministers. The Planning Commission submits over-all plans concerning the republic economy, including plan estimates for major production and for allocation of significant industrial materials and technical supplies. The Scientific-Technical Committee advises the Council of Ministers on the latest scientific knowledge and techniques and is responsible for disseminating such information to the proper industrial administrative bodies. These 2 advisory organs have no control or inspection functions over republic industry but may make recommendations to the Council of Ministers and the Party Central Committee. The Technical and Economic Council attached to the Council of National Economy acts as a consultative body on over-all organization and administration.

TABLE VI
ORGANIZATION OF INDUSTRY AND CONSTRUCTION: 1959



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With the growing emphasis on scientific and technical competence at all government levels for the direction of important aspects of the economy, those individuals with the requisite knowledge and skills should achieve increasing official prominence and authority. After the death of Stalin in 1953 and the purging of Beriia, a trend developed toward replacing Russians in higher positions with Russian-Estonians and, increasingly, with Estonians. Of the 125 delegates elected to the Supreme Soviet in 1955, 56 were Estonians (45 per cent), 22 were Russians, and 47 were Russian-Estonians. As a result of the industrial reorganization, the role of qualified native Estonian economic specialists in the republic control force will probably increase. Nevertheless, the direction of the most important government agencies and operations will undoubtedly continue to be closely supervised by Russian administrators.

Party control over government is maintained through the Party organizations at all levels, which check on operations of the corresponding government agencies. A large proportion of the incumbents of top level government positions are also at the same time Party members. Of the total delegates elected to the Supreme Soviet in 1955, Communist Party members numbered 86, or 68.8 per cent. Of these, 43 were on the Party Central Committee. On the lower government levels participation of Party members is far smaller. In the March 1957 Estonian elections to local soviets only 33.7 per cent of successful candidates were Communist Party members.

Variation in the proportional participation of occupational categories and in the distribution of the sexes at republic and local governmental levels is revealed in statistics on the electees to the Supreme Soviet in 1955 and to the local soviets in 1957. Of the Supreme Soviet delegates, the proportion of workers and collective farm workers was approximately 14 per cent, and of women 30.4 per cent. About half of electees to local soviets were workers and collective farm workers, and 41.2 per cent were women.

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II. Population, Labor Force, and Ethnic Composition

TABLE VII

SUMMARY OF DEMOGRAPHIC CHARACTERISTICS: 1959

Total population	1,181,000
Population density (persons per square mile)	68
Urban population	642,000
Per cent urban	54.4
Labor force	685,000
Per cent total population in labor force	58.0
Population in working ages (16-59 years) ..	721,000
Females per 100 males in working ages	139
Military personnel	85,000
Per cent Estonians in total population	75
Per cent Russians in total population	25

A. General

The Estonians settled the northeastern shores of the Baltic probably more than 2,000 years ago, coming from the middle Volga and Ural valleys. A branch of the Finno-Ugrian family, they speak a language which is related to Finnish and Magyar. A sea-faring people, they were conquered in the 13th century by the Danes, who later sold the country to the Order of the Teutonic Knights. Under the Order, the German Baltic barons came to power, holding the native peoples in virtual serfdom for centuries. Under the protection of Sweden, the peasants overthrew the knights in the 16th century and resisted for a while the Russian drive toward "a window on the Baltic." However, in 1721 the country fell to Peter the Great, along with Latvia and Lithuania. Under the Tsars, the Baltic barons were allowed to continue their exploitation of the peasants.

At the end of World War I, Estonia was occupied by German forces and threatened by both the Bolsheviks and the White Russians, but finally succeeded in establishing its independence, securing recognition by the League of Nations in 1920. During its 20 years of existence, the independent Estonian Republic survived the loss of Russian markets and the setbacks of the World Depression in the 1930's to achieve some fair

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successes as an exporter of agricultural products in the world market. Early in World War II, the Soviets occupied the country and forced upon it the status of a Soviet Socialist Republic in August of 1940. The German rout of the Soviets in 1941 imposed Nazi rule over the population until 1944, when the Soviets again occupied the country and re-established it as a Soviet union republic with a Communist government.

Estonia, third smallest among the Soviet union republics in size (after Armyanskaya and Moldavskaya SSRs), ranks lowest in total number of inhabitants. Even during the period of domination by Tsarist Russia, the country was characterized by a comparatively slow rate of population growth. Toward the end of the 19th century, the birth rate was the lowest in the Russian empire, and from 1888 to 1934 it declined from 30.3 per thousand to 15.4 per thousand. An accompanying, though less spectacular, decrease in the death rate partially offset this decline, although in 1939, the last prewar year, the birth rate of 16.3 per thousand and the death rate of 14.5 per thousand resulted in a rate of natural increase of only 1.4 per thousand (see Table VIII), one of the lowest in the world. The over-all Soviet rate of natural increase in the middle thirties, for instance, was 15 to 20 per thousand.

TABLE VIII

POPULATION GROWTH: 1913-1959
(Selected Years)

Year	Total Population (in thous.)	No. of Births Per Thousand Inhabitants	No. of Deaths Per Thousand Inhabitants	Net Increase in Pop. Per Thousand Inhabitants
1913	954	24.7 ^{a/}	19.2 ^{a/}	5.5 ^{a/}
1922	1,107	20.2	16.7	3.5
1934	1,126	15.4	14.1	1.3
1939	1,134	16.3	14.5	1.4
1940	1,052	17.4	18.0	-0.6
1956	1,149	16.9	11.1	5.8
1959	1,181	na	na	na

^{a/} For year 1914.

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The already slow population growth suffered severe setbacks during World War II and the early years of occupation. The pure numerical drop in population (82,000 or 7.2 per cent of the total) between 1939 and 1940--the latter being the year of the first Soviet occupation--probably does not reflect actual losses for that year in the Estonian original population base, owing to the concurrent in-migration of Soviet occupation personnel. From the time of the first Soviet occupation in June 1940 through the German occupation of 1941 to 1944, the country lost an estimated 190,000 citizens, equal to about 17 per cent of its prewar population. During the initial Russian occupation many Estonians were conscripted into the Soviet army or deported to the USSR; some Germans may have been repatriated at this time. In the period June to December 1941, additional losses resulted from military casualties and executions and deportations carried out by the Germans.

The Russian advance and re-occupation of Estonia in the autumn of 1944 brought about further military casualties, civilian deaths, and executions; tens of thousands of refugees fled with the German army before the Russians, and some escaped to Sweden. Estonian losses in the period 1945-1950, occasioned by additional deportations to the USSR, amounted to 80,000 to 100,000. Chiefly males, and to a lesser extent females, in the prime working ages were affected, although in some cases entire families were uprooted. In order to insure closer control over the area and to solidify Soviet influence, large numbers of occupation forces and Russian civilian administrators and technicians were brought in. Many Sovietized Estonians who had lived for years in other areas of the USSR were returned to Estonia in a less overt effort to establish control over the population. It is estimated that by 1950 as many as 300,000 persons had entered Estonia from the USSR, thus filling the gaps in the original population.

Vital statistics for 1950 (for which year official total population figures are not available) reported 18.7 births and 14.6 deaths per

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thousand population, or an excess of births over deaths of 4.1 per thousand, a substantial gain over prewar 1939 and the deficit year of 1940. The death rate remained at the comparatively high prewar level, and the increase is thus entirely a result of the higher proportion of births. In view of the postwar deficit of Estonian males, particularly in the prime working ages, the somewhat higher birth rate is probably attributable in large part to the in-migrant Russian families, which tend to have more children, and perhaps also to a growing tendency on the part of the excess Estonian women to accept Russian mates in lieu of none.

If the prewar increasingly lower birth rates and the generally high death rates had continued, Estonia would have faced the eventuality of a population deficit not occasioned by political catastrophes. Thus, the Soviet occupation, which has made some significant alterations in the population structure itself, appears to have reversed the trend for the time being. Population growth in Estonia in the 17-year period from 1922 to 1939, roughly corresponding to the period of the country's independence, totaled only one per cent. In the 16-year period between 1940 and 1956, the population increased 12.3 per cent, adding another 2.9 per cent between 1956 and 1959.

At present, then, the population is slowly increasing at slightly varying annual rates which exceed prewar rates as far back as the 1920's. However, Estonia is still far behind the average growth in the Soviet Union (see Table IX), and certain factors will probably soon have an adverse effect on population growth. The highest postwar Estonian birth rate (18.9 per thousand) was registered in 1952. Subsequent dips, with a recorded low in 1956, may forecast a continuing decrease as the children born in the birth-deficit early 1940s come of age within the next decade. A rise in the crude death rate among a gradually aging population is also to be expected. Thus, the current slightly increasing population may become stabilized within the next generation, and may possibly even decline after that time without substantial in-migration from areas outside the republic.

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TABLE IX
COMPARISON OF RATES OF POPULATION GROWTH,
USSR AND ESTONIA: 1956

	<u>USSR</u> <u>1956</u>	<u>Estonia</u> <u>1956</u>	<u>Estonia</u> <u>Avg. 1950-56</u>
Births per thousand pop.	25.0	16.9	18.2
Deaths per thousand pop.	7.7	11.1	13.0
Net increase per thousand pop.	17.3	5.8	5.3

The present population is predominantly urban (54.4 per cent). Females outnumber males 128:100 in the total population and 139:100 in the prime working ages (16-59). The proportion of persons aged 60 and above in the population, 14.6 per cent, is high compared to the USSR average of 8.2 per cent, and the 0-15 age cohort is proportionally smaller. The percentage of the population which is gainfully employed, 58.0 per cent, is approximately average for the administrative-territorial divisions of European Russia. The role of forced labor in the labor force is probably negligible. Military personnel comprise 7.2 per cent of the total population, compared to 2.2 per cent for the USSR as a whole. Ethnically, the population is estimated to be 75 per cent Estonian and 25 per cent Russian.

B. Urban-Rural Distribution

Prior to World War II, Estonia had always been essentially an agricultural country with a large rural population. Despite in-migration from rural areas totaling 47,000 during the period 1922 to 1934 and the incorporation of outlying areas into some of the larger cities, the rate of urbanization in Estonia was less during this period than it had been at the end of the nineteenth century or the beginning of the twentieth century. Tallin, whose population in 1940 represented 40 per cent of the total urban population, was the only city of considerable size and

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industrial importance; only one other city, Tartu, had a population exceeding 50,000, and 7 cities had populations of at least 10,000.

Under Soviet occupation, with its emphasis on rapid industrialization, Estonia shifted from a chiefly rural to a predominantly urban economy. More than half of the country's population, 54.4 per cent, now lives in urban areas, compared to only 33 per cent in 1939. In the interim period, the urban population has increased numerically 71.7 per cent (see Table X), while the total population was increasing only 4.1 per cent.

Almost half (48.5 per cent) of the urban increase since 1939 occurred in Tallin alone, which now accounts for 42.8 per cent of the total urban population. Approximately 30 per cent of urban growth took place in those urban areas now having from 10-20,000 inhabitants. Within this category fall 3 important centers in the shale fields, (Kiviyl, Akhtme, and Sillamya) which were nonurban in 1939, as was also Kokhtla Yärve, with a present population of 23,000. Other towns in the same population range are Tapa with a reported uranium ore mine and concentration plant, Kingisepp with an important cellulose and paper combine, and Vyru with major peat processing plants.

On the other hand, the population of Narva has remained numerically stable since 1939, with approximately 23,000 inhabitants. At the same time, its importance as administrative center for major activities in the surrounding rural areas--with new thermal power production facilities and oil-shale and uranium ore mining--has substantially increased.

Estonia's over-all population density of 68 persons per square mile (see Table XI; refer to Map III) is low for the northwestern and western areas of the USSR. Latviyskaya and Litovskaya SSRs, for example, have population densities of 83 and 103 persons per square mile, respectively. The numbers of rural inhabitants per square mile in the 3 republics compare as follows: Estonia, 31; Latvia, 38; and Lithuania, 71.

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The densest rural populations of the republic are found in the Central and SE Economic Region, where the rural population's chief occupation is raising dairy cattle and hogs. The heaviest concentrations of rural dwellers are in 4 rayons where some industrial crops are also raised and specialized agricultural activities are carried on: Vastselinaskiy (flax, lake-fishing); Ryapinaskiy (flax, lake-fishing); Kallasteskiy (potatoes and vegetables, lake-fishing); and Elvaskiy (sugar beets, flax).

TABLE X

URBAN AREA POPULATION RANGES:
1922, 1939, 1959

Cities of	Number of Urban Areas			Population			Per Cent Increase 1939-1959
	1922	1939	1959	1922	1939	1959 ^{a/}	
Over							
100,000	1	1	1	122,419	144,978	275,000	89.7
50-100,000	1	1	1	50,342	60,281	73,000	21.1
20-50,000	1	3	3	26,912	67,468	84,000	24.5
10-20,000	1	3	9	18,499	33,697	112,000	232.4
Less than							
10,000	<u>26</u>	<u>26</u>	<u>47</u>	<u>69,872</u>	<u>67,098</u>	<u>98,000</u>	<u>46.1</u>
Total	30	34	61	288,044	373,522	642,000	71.7

^{a/} Estimated.

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TABLE XI
ESTIMATED POPULATION AND DENSITY BY
ADMINISTRATIVE-TERRITORIAL DIVISIONS: 1959

Administrative- Territorial Division	Area (Square Miles)	Population (in Thousands)			Density (Persons per sq. mile)	
		Urban	Rural	Total	Rural	Over-all
Estonkaya SSR	17,413	642	539	1,181	31	68
<u>Rayons:</u>						
Abyaskiy	354	6	12	18	34	51
Antslaskiy	354	3	12	15	34	42
Elvaskiy	399	3	18	21	45	53
Kallasteskiy	254	3	12	15	47	59
Keylaskiy	444	8	12	20	27	45
Khaapsaluskiy	607	6	17	23	28	38
Kharyuskiy (incl. Area A)	662	279	24	303	36	470
Khiumaskiy	399	2	8	10	20	25
Kilingi-Nymmeskiy	489	3	14	17	29	35
Kingiseppskiy	707	10	17	27	24	38
Kiviyliskiy	326	12	10	22	31	67
Koseskiy	372	3	12	15	32	40
Likhulaskiy	553	1	12	13	22	24
Mustveskiy	408	2	17	19	42	47
Myaryamaskiy	372	1	8	9	22	24
Orissaareskiy	462	--	18	18	39	39
Otepyaskiy	218	2	8	10	37	46
Paydeskiy	462	4	14	18	30	39
Pyarnu-Yagupiskiy	381	1	8	9	21	24
Pyltsamaskiy	562	3	15	18	27	32
Pylvaskiy	372	--	15	15	40	40
Rakvereskiy	616	16	20	36	32	58
Raplaskiy	489	4	14	18	29	36
Ryapinaskiy	417	2	20	22	48	52
Suure-Yaniskiy	354	2	12	14	34	40
Tapaskiy	526	12	17	29	32	55
Tartuskiy (incl. Area F)	544	73	17	90	31	165
Tyrvaskiy	344	1	12	13	35	38
Tyuriskiy	354	2	10	12	28	34
Valgaskiy	381	13	12	25	31	66
Vastselinaskiy	236	--	12	12	51	51
Vilyandiskiy	444	13	17	30	38	68
Vyayke-Maryaskiy	499	1	20	21	40	42
Vyandraskiy	408	5	10	15	25	37
Vyruskiy	344	15	14	29	41	84
Yygevaskiy	435	1	14	15	32	34
Yykhviskiy (incl. Areas B, C, & D)	807	88	20	108	25	134
Administrative Area E (formerly Pyarnuskiy Rayon)	562	42	15	57	27	101

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C. Age-Sex Structure

The age-sex composition of Estonia's population (see Table XII) is characterized by an increasing predominance of females: in 1959 there are an estimated 128 females to every 100 males, compared with 113:100 in 1940. War and postwar losses have weighted the scales heavily in favor of the female population, particularly among those in the prime working

TABLE XII

AGE-SEX COMPOSITION:
1922, 1940, 1959
(Numbers in Thousands)

<u>Age Group</u>	<u>1922</u>		<u>Total</u>	<u>Per Cent of Total</u>
	<u>Male</u>	<u>Female</u>		
0-15	154	151	305	27.6
16-59	311	359	670	60.5
60 plus	<u>55</u>	<u>77</u>	<u>132</u>	<u>11.9</u>
Total	520(47.0%)	587(53.0%)	1,107	100.0

<u>Age Group</u>	<u>1940 (September)</u>		<u>Total</u>	<u>Per Cent of Total</u>
	<u>Male</u>	<u>Female</u>		
0-15	133	130	263	23.5
16-59	328	363	691	61.9
60 plus	<u>64</u>	<u>99</u>	<u>163</u>	<u>14.6</u>
Total	525(47.0%)	592(53.0%)	1,117	100.0

<u>Age Group</u>	<u>1959a/</u>		<u>Total</u>	<u>Per Cent of Total</u>
	<u>Male</u>	<u>Female</u>		
0-15	146	145	291	24.6
16-59	302	419	721	61.1
60 plus	<u>69</u>	<u>100</u>	<u>169</u>	<u>14.3</u>
Total	517(43.8%)	664(56.2%)	1,181	100.0

a/ Estimated.

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ages, and today the serious shortage of Estonian adult males (ages 16-59) overshadows all other population problems within the republic. While the ratios of males to females in the 0-15 and 60-plus cohorts remained relatively constant in the years 1940-59, in the 16-59 age group the ratio decreased from 111 females to every 100 males to 139 to 100. The postwar population increase is reflected in every male and female cohort except in males aged 16-59; within this age group the number of females increased by 56,000, whereas the number of males decreased by 26,000.

Within the 16-59 age cohort, females outnumber males in both urban and rural areas (see Table XIII). The difference is more striking in urban areas, a situation which existed under the independent republic and is now intensified. For example, in 1934, there were 126 females to every 100 males in urban areas; in 1959 there are 137 per 100. In rural areas, the sex ratio has traditionally been closer, although postwar conditions have also widened the gap between males and females in the countryside. In 1934 there were 107 females per 100 males; in 1957, 119 per 100 in the total rural population and 126 to 100 in the prime working ages.

The shift of the population from rural to urban areas is also most apparent in the main working ages. Although in per cent of total population this group has decreased very slightly, in distribution it is generally analagous to the urban-rural redistribution of the population. In 1934, 34.3 per cent of this cohort resided in urban areas; at the present time, 56.7 per cent are urban.

Young people, 0-15, continue to be more strongly represented in rural areas, an indication of larger rural families and a higher rural birth rate. Nevertheless, exemplifying the general trend toward urbanization, the percentage of young people living in urban areas is much higher in 1959 than in 1934--49.1 per cent as compared with 26 per cent.

The older segment of the population also reflects this trend, for this group is now 53.3 per cent urban as compared with 31.2 per cent

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TABLE XIII
 URBAN-RURAL DISTRIBUTION BY AGE AND SEX:
 1922, 1934, 1959
 (Numbers in Thousands)

1922

Age Group	URBAN				RURAL			
	Male	Female	Total	Per Cent of Total	Male	Female	Total	Per Cent of Total
0-15	37	36	73	24.2	117	115	232	28.8
16-59	88	109	197	65.2	223	250	473	58.8
60 plus	<u>11</u>	<u>21</u>	<u>32</u>	<u>10.6</u>	<u>44</u>	<u>56</u>	<u>100</u>	<u>12.4</u>
Total	136	166	302	100.0	384	421	805	100.0

1934

0-15	36	35	71	19.8	102	100	202	26.3
16-59	106	134	240	66.8	223	236	459	59.9
60 plus	<u>17</u>	<u>31</u>	<u>48</u>	<u>13.4</u>	<u>45</u>	<u>61</u>	<u>106</u>	<u>13.8</u>
Total	159	200	359	100.0	370	397	767	100.0

1959

0-15	72	71	143	22.3	74	74	148	27.5
16-59	164	245	409	63.7	138	174	312	57.9
60 plus	<u>35</u>	<u>55</u>	<u>90</u>	<u>14.0</u>	<u>34</u>	<u>45</u>	<u>79</u>	<u>14.6</u>
Total	271	371	642	100.0	246	293	539	100.0

prior to World War II. Females in this group also outnumber males in urban areas; 157:100 in urban areas, as compared with 132 females per 100 males in rural areas.

If one considers only native Estonian male adults the situation is even more striking. The actual number of Estonian males may be as low as 117,000, for of the 302,000 in the 16-59 cohort approximately 85,000 are non-Estonian military personnel and probably at least 100,000 are Russian civilians. With about 419,000 Estonian females in this group, the majority of childbearing age, Estonian males are outnumbered by more than

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3 times. Obviously, this poses serious problems for the future of the Estonian population.

Among the older population, 60 and above, the disparity between males and females decreased since 1940 from 155 to 145 females per 100 males. Among the youthful population (0-15) the male-female ratio is slightly in favor of the males, although less than in 1940. As this group ages, however, the ratio will tend to equalize, and eventually females will move into the majority. Since many in this younger group are Russian, however, the problem of Estonian underpopulation will remain.

D. Labor Force

The total labor force in Estonskaya SSR (see Table XIV) is estimated at 685,000, including 85,000 military, and represents 58.0 per cent of the total population. Approximately 54.7 per cent of the civilian population is gainfully employed. The proportion of the labor force in urban areas is 54.7 per cent, compared to 45.3 per cent in rural areas. Of the urban population, 58.4 per cent are gainfully employed, compared to 57.5 per cent of the rural population. While much of the postwar reconstruction work in the republic was carried out with the use of forced labor, the latter probably now plays an insignificant role in the labor force. The extensive amnesties which have followed Stalin's death have greatly reduced the numbers of forced laborers and allegedly brought many deportees back to Estonia. Recent Soviet pronouncements have disavowed the utilization of forced labor in economic projects.

While the total population has increased 4.9 per cent since 1934, the labor force has increased 10.7 per cent. In the same period the number of non-agricultural workers and employees rose 120 per cent, while the agricultural labor force decreased by 44.5 per cent. It should be noted in this connection that the 1934 figure for agricultural labor force includes members of families (women and children) working on individual farms without compensation.

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TABLE XIV
COMPOSITION OF LABOR FORCE
1934, 1959
(Numbers in thousands)

Category	Total		Urban		Rural	
	Number	Per Cent of Total	Number	Per Cent of Total	Number	Per Cent of Total
<u>1934</u>						
Agriculture	454	68.2	16	8.8	438	90.5
Workers and Employees ^{a/}	153	23.0	119	65.4	34	7.0
Military personnel	17	2.5	15	8.2	2	0.4
Others	<u>42</u>	<u>6.3</u>	<u>32</u>	<u>17.6</u>	<u>10</u>	<u>2.1</u>
Total	666	100.0	182	100.0	484	100.0
<u>1959</u>						
Agriculture	251	26.6	3	0.8	248	80.0
(MTS/RTS)	(16)	(2.3)	--	--	(16)	(5.2)
(State farms)	(31)	(4.5)	--	--	(31)	(10.0)
(Collective farms and fishing collectives)	(204)	(29.8)	(3)	(0.8)	(201)	(64.8)
Workers and Employees ^{b/}	336	49.1	284	75.8	52	16.8
Nonagricultural (Industry)	(140)	(20.4)	(118)	(31.5)	(22)	(7.1)
Military	85	12.4	77	20.5	8	2.6
Others	<u>13</u>	<u>1.9</u>	<u>11</u>	<u>2.9</u>	<u>2</u>	<u>0.5</u>
Total	685	100.0	375	100.0	310	100.0

^{a/} Excludes workers and employees in agriculture.

^{b/} Workers and employees in agriculture are those on the labor force of the MTS/RTS and state farms.

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Workers and employees, numbering 383,000, constitute more than half (55.9 per cent) of the total labor force; the 47,000 agricultural workers and employees include those engaged on machine tractor stations (MTS), repair technical stations (RTS), and state farms. The largest category of the agricultural labor force are the workers on collective farms and fishing collectives, comprising 81.3 per cent of all agricultural workers. Of total workers and employees, 74.2 per cent are urban non-agricultural workers and 36.6 per cent are industrial workers, chiefly urban. The proportion of military in the labor force, 12.4 per cent of the total, is high compared to the USSR proportion of 4 per cent.

Women reportedly comprise 49 per cent of all workers and employees (1956) and probably constitute more than half of the agricultural labor force. In 1934 only 31.5 per cent of agricultural workers were women. Among agricultural workers and employees, 13 per cent of workers on the MTS/RTS and 52 per cent of workers on state farms are women. The proportion of women in industry has substantially increased from 30.7 per cent in 1934 to 48.0 per cent in 1959 (see Table XV). While in 1934 only 28 per cent of workers engaged in administration and the professions were women, the latter comprise the bulk of those presently working in public health and education, as well as 57 per cent in government and administration. Women also predominate in occupations concerned with trade and public dining.

The largest category of industrial workers is that employed in light industry (27.7 per cent in 1955), particularly textiles (see Table XVI). This percentage represents a substantial increase over 1945, accompanied by a converse drop in the proportion of workers in machine building and metalworking and in the lumbering, woodworking, and paper industry.

More than half of the workers in industry, 56.1 per cent (see Table XVII), are concentrated in 5 of the 6 cities of republic subordination (Sillamyae excluded). One third work in the city of Tallin alone.

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TABLE XV

ESTIMATED DISTRIBUTION OF NONAGRICULTURAL
WORKERS AND EMPLOYEES BY OCCUPATION: 1959^{a/}

Occupational Category	Workers and Employees		
	Number (in thousands)	Per Cent of Total	Per Cent Women
Industry	140	41.7	48
Construction	22	6.5	22
Transport	38	11.3	b/
Rail	(13)	(3.9)	na
Water	(2)	(0.6)	na
Automotive and transit	(23)	(6.8)	na
Communications	8	2.4	b/
Government, economic manage- ment, and public institutions	11	3.3	57
Public health	21	6.3	86
Education	30	8.9	74
Trade	20	5.9	68
Public dining	8	2.4	86
Credit and finance	2	0.6	na
Other	<u>36</u>	<u>10.7</u>	na
Total	336	100.0	

^{a/} Based on reported proportional distribution in 1956.^{b/} Women comprise 33 per cent of the labor force in transport and communications.

TABLE XVI

DISTRIBUTION OF INDUSTRIAL WORKERS
BY BRANCH OF INDUSTRY
1945, 1950, 1955

Branch of Industry	Workers in Per Cent of Total		
	1945	1950	1955
Light Industry (cotton, linen, wool, knitting, shoe, sewing)	17.7	22.6	27.7
Machine building and metalworking	20.3	17.5	17.2
Lumbering, woodworking, and paper industry	23.9	18.7	15.1
Food processing (meat, fish, dairy, bakery, canning)	12.2	12.9	12.9
Fuel (shale extraction and processing, peat industry)	10.8	14.6	11.7
Construction materials industry	4.1	4.7	4.9
Chemical industry	1.4	1.5	2.0
Electrical production	2.1	1.8	1.7
Glass industry	2.3	1.3	1.3
Other	<u>5.2</u>	<u>4.4</u>	<u>5.5</u>
Total	100.0	100.0	100.0

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TABLE XVII
DISTRIBUTION OF INDUSTRIAL WORKERS
BY PLACE OF EMPLOYMENT
1950, 1955

Place of Employment	Workers in Per Cent of Total Industrial Workers	
	1950	1955
Tallin	30.6	33.9
Narva	7.0	8.3
Tartu	4.8	5.6
Kokhtla-Yarve	7.0	5.0
Pyarnu	2.6	3.3
Total	52.0	56.1

E. Ethnic Composition

The most striking change in the ethnic composition of Estonia has been the accretion of the Russian minority at the expense of the Estonians and the minority groups. Under the independent republic, the ethnic structure was relatively homogeneous, Estonians representing 88.1 per cent of the population (see Table XVIII). The Russians, concentrated primarily in rural areas along the southeastern and northeastern borders, comprised the largest minority, 8.2 per cent; the Germans and the Jews, chiefly located in Tallin and a few other cities, represented only 1.5 and 0.4 per cent, respectively. The rigors of war and Russian domination in the postwar period produced a decline in the original Estonian population and almost completely obliterated the non-Russian minority groups. The Russians, largely through in-migration, have expanded their numbers considerably and at the present time represent approximately 25 per cent of the total population. Estonians represent 75 per cent, and non-Russian minorities comprise less than one per cent.

The 10.7 per cent decrease in numbers of Estonians between 1934 and the present does not reveal the true nature of wartime and postwar losses which reduced the prewar Estonian inhabitants by 190,000.

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TABLE XVIII
ETHNIC COMPOSITION
1922, 1934, 1959

<u>Ethnic Group</u>	<u>1922^{a/}</u>		<u>1934^{a/}</u>	
	<u>Number</u>	<u>Per Cent of total</u>	<u>Number</u>	<u>Per Cent of Total</u>
Estonians	969,976	87.6	992,520	88.1
Russians	91,109	8.2	92,656	8.2
Germans	18,319	1.7	16,346	1.5
Swedes	7,850	0.7	7,641	0.7
Latvians	--	--	5,435	0.5
Jews	4,566	0.4	4,434	0.4
Poles	--	--	1,608	0.1
Finns	--	--	1,929	0.2
Others	<u>15,241</u>	<u>1.4</u>	<u>3,844</u>	<u>0.3</u>
Total	1,107,059	100.0	1,126,413	100.0

	<u>1959^{b/}</u>	
	<u>Number</u>	<u>of Total</u>
Estonians	886,000	75
Russians	295,000	25
Others	<u>c/</u>	<u>c/</u>
Total	1,181,000	100

a/ Reported.
b/ Estimated.
c/ Less than one per cent.

Approximately 100,000 Sovietized Estonians who had resided in various parts of the USSR were repatriated to Estonia during the postwar period, partially alleviating the reduction in Estonian ethnic representation. However, Russians during this same period increased in number to 295,000, or more than 3-fold. By 1950, at least 300,000 persons (one-fourth of the present population) had entered the republic from the USSR.

Within the USSR contingent of settlers are some elements which are not true Russian, particularly Ukrainians and a few Soviet Asians. They have probably been absorbed for the most part into the inadequate

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collective farm labor force. Other minority groups, who comprised 3.7 per cent of the 1934 population, have all but disappeared, now accounting for less than one per cent. Although a few Swedes or Finns may be left among the fishing population, most accepted the offer of repatriation in the immediate postwar period. The Jews, never numerous in Estonia, were virtually eliminated during the German occupation; current references have been made to a few Jewish industrial managers and doctors, probably from Russia.

III. Psychological and Sociological Factors

A. Strengths and Weaknesses of the Soviet Position

The most obvious testimonial to the strength of the Soviet system as it is applied in Estonia is the fact that it has actually been imposed and enforced and is working with a minimum of outward resistance from the population. The huge economic, administrative, and security apparatus is well-entrenched, and there is little ostensible differentiation between Estonia and the other older USSR republics.

On the other hand, most of the factors which militate for the stability of the Soviet regime in Estonia are balanced by correlative psychological factors which bear an incipient threat to that stability, should Soviet power ever be challenged from the outside. Given the cultural history of the Estonians, their Western ethnic and political orientation, and their industrious and independent nature, these psychological factors undoubtedly play a greater role here than in other areas which have been forcibly incorporated into the USSR.

1. Living Standards

Living standards in Estonskaya SSR are relatively high compared with most areas of the Soviet Union. Per capita spending in state and cooperative trade for both food and non-food products in Estonia appears to indicate both greater availability and higher consumption of consumer goods than is general in the USSR. In 1956 per capita spending in Estonia was over 30 per cent higher than the average

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for the USSR, and in the preceding year the republic had a slightly more than proportional share of USSR trade reserves. Estonians spent 40.3 per cent more on all goods than the average USSR citizen in 1955, including 37.5 per cent more on food and 43.6 per cent more on non-food products. Statistics show that in 1957, 24 per cent more goods were sold to the Estonian population than in 1955. Food products account for 55.6 per cent of per capita trade turnover, including public dining, and non-food items for 44.4 per cent.

The network of retail trade and public dining enterprises in Estonia is more extensive than in the USSR as a whole and in the other Baltic republics. In 1956, retail trade turnover in the republic, including public dining, amounted to 4.4 billion rubles or 0.8 per cent of total retail commodity turnover in the Soviet Union as a whole. Total retail expenditures in Estonia increased 8 per cent from 1955 to 1956. Higher prices paid for some items in the republic, particularly those which must be imported, would probably be balanced out in the over-all picture by lower prices on other more available goods.

The city of Tallin, with 23.3 per cent of the total population and 42.8 per cent of total urban population, accounts for 38.7 per cent of total retail sales in the republic. Particularly well-served by a trade network, Tallin is highly favored among large USSR cities in terms of per capita spending, rapidity of trade turnover, and size of trade reserves. Tallin ranks fifth in per capita spending among 27 selected large urban areas of the USSR. Ahead of Leningrad, it is outranked only by Moskva, Riga, Kishinev, and Kiyev. Per capita expenditures in the city amount to more than 2.5 times the national average and substantially exceed the urban average.

The pattern of per capita spending reveals consumer goods to be far more available in urban than in rural areas. Soviet statistics for 1955 indicate that 82.7 per cent of the total volume of retail trade in Estonian state and cooperative enterprises was handled in urban areas

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and only 17.3 per cent in rural areas, which have 45.6 per cent of the total population. The disproportionate urban-rural sales pattern does not necessarily indicate similar inequalities in consumption patterns since the rural population tends to do much of its buying in the cities. Rural stores and shops are not as well stocked as those in urban areas and prices are appreciably higher in the countryside. A substantial amount of the farm worker's food comes to him as his share in the collective farm profits and in payment for workdays. His private plot is also a major source of supply. Thus, the rural dweller probably yields no great advantage to his city counterpart in quantity of food consumption, although his diet is probably much more monotonous. Nevertheless, with his substantially lower purchasing power and restricted access to the sources of supply, the rural inhabitant is considerably less privileged in respect to consumer goods than the city dweller.

At the end of 1955 the Estonian share of USSR total commodity reserves in retail trade was roughly proportional to its population. The proportional share for the Tallin population was almost double.

TABLE XIX
SHARE OF COMMODITY RESERVES IN RETAIL TRADE AT END OF 1955

	Per Cent of Republic Total	Per Cent of USSR Total	In Days of Trade Turnover	Sales- Inventory Ratio
Estonia:				
All goods	100.0	0.7	75	5.6
Food products	17.9	0.6	29	16.7
Non-food products	82.1	0.8	110	3.1
Tallin:				
All goods	25.9	0.2	50	8.3
Food products	--	--	19	--
Non-food products	--	--	78	--

Compared to US retail trade statistics, the Estonian sales-inventory ratio (ratio of annual sales to year-end inventories) of 5.6 is low, probably indicating some inefficiencies in the retail distribution

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system. Failures in planning and timing of the flow of food and goods and in utilization of transport facilities result in frequent over- or under-stockpiling, shipping delays and errors, and the recurring lack of seasonal goods or superfluity of out-of-season items. On the other hand, the Estonian sales-inventory ratio is slightly more favorable than the 5.1 for the USSR as a whole. The reported sales-inventory ratio of 4.3 within the system of the Central Union of Consumers' Cooperatives, which serves primarily the rural areas, implies a slower rate of turnover in the countryside than in the cities. The distribution system appears to operate much more effectively in Tallin, which, with 25.9 per cent of Estonian total trade reserves, has a sales-inventory ratio of 8.3, comparing with the U.S. figure of 8.9 in 1957.

The large proportion spent on bread and cereals, totaling 17.8 per cent of food sales (see Table XX), is general throughout the USSR and indicates a diet high in starches. This premise is underlined by the fact that the prices of bread and cereals are significantly low in relation to the cost of other foods. However, Estonians spend a higher proportion than the population of any of the other union republics for meat and meat products, and expenditures for fish are larger than in any republic except the RSFSR. Since the country is a meat-producing area and has an important fishing industry, these expenditures are probably less a reflection of high prices than they would be in most places. The Estonian diet is presumed, consequently, to be comparatively high in protein.

The category of "Alcoholic and non-alcoholic beverages and other food products," judged by All-Union data, refers chiefly to beverages and predominantly to alcohol. The overwhelmingly large proportion spent in this category--accounting for 18.9 per cent of total retail trade turnover--is the highest in the Soviet Union and well above the USSR average of 14.8 per cent. Vodka is reported to be among the few items readily available at all times, and the Estonians have generally

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TABLE XX
ANNUAL PER CAPITA EXPENDITURES IN STATE AND
COOPERATIVE TRADE BY ITEM
1955

	ESTONIA		TALLIN	
	Per Capita (in rubles)	Per Cent of Total	Per Capita (where available) (in rubles)	Per Cent of Total
<u>Food Items</u>				
Meat and meat products	173.60	9.9	336.80	9.9
Fish	68.80	3.9	165.40	4.9
Canned goods	36.00	2.1	--	--
Fats	122.40	7.0	330.70	9.7
Milk	45.60	2.6	--	--
Cheese	13.60	.8	--	--
Eggs	14.40	.8	--	--
Sugar	100.00	5.7	220.50	6.5
Confectionery	127.20	7.3	--	--
Tea	3.20	.2	--	--
Salt	4.00	.2	--	--
Bread	217.60	12.4	--	--
Flour and cereals	95.20	5.4	--	--
Potatoes	12.00	.7	--	--
Vegetables	18.40	1.1	--	--
Fruit	20.80	1.2	--	--
Alcoholic and non-alcoholic beverages and other food products	616.80	35.3	--	--
Markup in public catering	<u>59.20</u>	<u>3.4</u>	<u>--</u>	<u>--</u>
Total	1,748.80	100.0	3,405.00	100.0
<u>Non-Food Items</u>				
Cloth	237.60	15.8	410.90	15.1
Ready-made clothing	276.00	18.4	612.40	22.5
Knitwear, stockings	113.60	7.6	220.50	8.1
Footwear	150.40	10.0	251.10	9.2
Soap and perfumes	32.80	2.2	--	--
Haberdashery and sewing materials	73.60	4.8	--	--
Tobacco	89.60	6.0	--	--
Matches	4.80	.3	--	--
Kerosene	4.80	.3	--	--
Furniture, metal beds	50.40	3.4	--	--
Kitchen and dishware	39.20	2.5	--	--

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TABLE XX (Continued)

	ESTONIA		TALLIN	
	Per Capita (in rubles)	Per Cent of Total	Per Capita (where available) (in rubles)	Per Cent of Total
<u>Non-Food Items</u>				
Cultural goods	145.60	9.7		
Incl.				
School and office materials and printed matter	(70.40)	(4.7)		
Bicycles and motorcycles	(15.20)	(1.0)		
Radios	(22.40)	(1.5)		
Other	(37.60)	(2.5)		
Construction materials	46.40	3.1		
Other non-food	<u>237.60</u>	<u>15.9</u>		
Total	1,502.40	100.0	2,719.00	100.0

been noted for their substantial consumption of alcohol. The proposed Soviet law restricting the sale of alcohol in restaurants to one drink per customer will undoubtedly meet with a cool reception in Estonia.

Of the non-food products, ready-made clothing and footwear absorb the largest portion of the Estonian citizen's budget, totaling 28.4 per cent of non-food sales. It is reported that clothing sales in 1957 were 45 per cent higher than in 1955 and that footwear sales rose by 52 per cent in the same period. However, these items are still considered in short supply and the size of expenditures is probably indicative of high prices rather than quantity consumption.

In spite of the relatively favorable situation in Estonia with regard to accessibility and consumption of consumer goods, the statistics reveal apparent shortages in some of the necessities (see Table XXI). It can be seen that only 3 to 4 months' supplies or less in normal trade turnover exist in certain critical categories: clothing and footwear, kerosene, tobacco, and furniture. Somewhat larger reserves of

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TABLE XXI

TOTAL NON-FOOD RESERVES IN RETAIL
NETWORK AT END OF 1955

<u>Item</u>	<u>In days of trade turnover</u>
Cloth	121
Ready-made clothing	88
Knitwear and stockings	91
Footwear	77
Household soap	109
Toilet soap and perfumes	185
Haberdashery and sewing materials	181
Tobacco	57
Matches	126
Kerosene	35
Furniture and metal beds	39
Kitchenware	192
Dishware	105
Cultural goods	143
School and office materials	176
Printed matter	136
Radios	89
Window glass	72
Construction materials	150
Bicycles and motorcycles	152
Total non-food products	110

clothing materials include for the most part cotton cloth and silk, the latter being prohibitively expensive. Woolen materials are very scarce, for most wool must be imported. Collective farmers are allowed a minimum amount of the wool from their own sheep for personal use, but may not sell any surplus except to the state.

Some household items are in relatively good supply, notably soap, matches, kitchenware, and dishware. Shortages allegedly occur in other items such as furniture and metal beds, firewood, elastic bands, clotheslines, bedquilts, and glass jars. The shortage of kerosene is a particular hardship for the farmers who would be the major consumers of this item. Collective farms are reportedly especially poorly supplied with household goods, gasoline and other commodities.

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In addition to the dissatisfaction produced by the shortages in goods, internal criticism is directed at many inefficiencies in the Estonian trade network, particularly the existence of too few shops and service shops, the poor service given, the low quality and discriminatory distribution of products, and discrepancies in prices. The ratio of retail trade enterprises to total population has remained at 29 shops per 10,000 inhabitants since 1940. At state and cooperative enterprises, prices are fixed and are generally lower than at other types of enterprises. However, unavailable items must frequently be sought elsewhere. Prices at the collective farm markets fluctuate with supply and demand and are usually comparatively high. Commission trade prices for the most part fall somewhere in between. Some stores operated by special groups, such as the military and police, cater to a favored clientele, such as high officials and members of the intelligentsia, featuring scarce and luxury goods at comparatively low prices. A general lack of adequate storage facilities is responsible for considerable wastage and spoilage in perishable goods, particularly in the fresh and frozen fish trade.

Given the unsolved problems of supply and demand and the scarcity of many items, a flourishing black market is a natural consequence. From numerous reports, it appears that almost everybody indulges in some type of black market activity, either by sale or by purchase. The collective farmers pilfer desired items from the farm stores and resell them privately. Workers in industry and trade divert into black market channels goods and materials which may even be resold to the same enterprise. Customers who stand in line for scarce consumer goods may immediately resell them for profit. There is brisk illicit traffic in goods from the cities to the rural areas, where prices are higher and selection is limited. Transport workers allegedly participate extensively in carrying black market articles to locations where shortages exist. And almost everyone is forced, at least occasionally, to seek

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black market necessities which are otherwise unobtainable. Among the most sought-after items of extralegal commercial transactions are reported to be automobiles, gasoline, metal, imported furs, firewood, wool, and sugar. In spite of the heavy penalties for black market dealings, they persist on all levels, even among officials. In August 1958, the Estonian Supreme Court sentenced to long prison terms several officials of light industry enterprises and producers' cooperatives who had been convicted of black marketeering. The defendants had been charged with stealing large amounts of state and public money by illegally diverting textile raw materials from state industrial enterprises and using them to produce unreported goods at a number of producers' cooperatives.

High taxes to which all incomes are subject exert a downward pressure on living standards and work an especial hardship on the low-income groups. Levies have included income tax, bachelors' tax (for single persons), childlessness tax (for families with less than 3 children), trade union tax, social-cultural tax (e.g., for social insurance, compulsory subscription to journals and cultural organizations), and required participation in the State Loan. Formerly, owners of State Loan bonds secured a return only by winning in the state lottery held twice a year. No more than about 25 per cent of the total bonds outstanding during the 20-year period of the loan floated in 1956 were to receive premiums. The other 75 per cent were to be redeemable only at face value in 1976. Even the rather tenuous chance of winning the lottery has evaporated with the recent announcement of Soviet authorities that, while "voluntary" subscription to the State Loan will be continued, state lotteries are canceled as of 1958. Some alleviation of the tax situation may be in sight with pronouncements by the regime that the bachelors' and childlessness taxes may be abolished.

High taxes, generally low wages, and the relative accessibility of consumer goods on which to spend money contribute to the

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limited amount of saving in Estonia, although the amount of personal savings and the number of depositors in the republic are about average for the USSR. With an estimated 0.6 per cent of the USSR population, Estonia had (1958) the same percentage of USSR savings bank depositors. Depositors comprised about 19 per cent of the total Estonian population, and held accounts totaling 432 million rubles, approximately 0.6 per cent of USSR total personal savings. The distribution of savings among various income groups is not known, but it is probably true that the bulk of deposits are held by favored income and occupational groups.

Contrary to the generally higher pattern of spending in Estonia, the proportional output by domestic consumers for construction materials is the lowest (along with the RSFSR) in the Soviet Union. Almost equally minimum construction of new individual housing is also indicated in Latvia and Lithuania, probably reflecting the comparatively high level of construction in the Baltic region prior to Soviet occupation and the rather negligible interim population increases, or, in the case of Lithuania, population losses.

2. Socio-Cultural Factors

a. Social and Economic Stratification

According to Soviet dogma, all peoples of the USSR are equal, sharing alike in the common task of building up their great nation, with amount of zeal and quality of accomplishment the only basis for enjoying greater or lesser rewards. All the apparatus of Party and bureaucratic controls are focused on the utilization of whatever means available--such as educational facilities, communications media, local government organs, and incentive systems--to organize society down to the most routine details of daily life in order best to achieve Soviet goals. The place of the individual or the group in this society is determined by a variety of factors, all bearing on the contribution made to the Soviet system, at least in the eyes of those who administer it.

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The result is a societal structure of vast differentiations in official prerogative, social prestige, and economic status. Thus, the myth of a classless society is as ill-founded in Estonia as elsewhere in the USSR, and the actual Soviet system of stratification into political, economic-occupational, and even ethnic hierarchies is well-integrated into the nation's social organization.

The Russians, by virtue of possessing the physical, though not the numerical, superiority, enjoy supremacy in all spheres. In firm political control, they have the power to manipulate the status of other ethnic groups, to stratify occupational levels, and to distribute economic benefits. In the minority, comprising roughly a quarter of the population, they occupy actually, if not always nominally, the highest official positions and have the greatest access to material advantage. The great bulk of the Estonians are relegated to a subject status in their own country, filling at best the secondary and minor official positions, required to subordinate their own interests to Soviet goals, and enduring deprivation in comparison to their previous experience. The Russian-Estonians fall somewhere in between. Because of their long exposure to the Soviet system and a presumed absence of nationalist hostility, they are more trusted by the Russians and reap corresponding benefits in the form of the higher secondary positions and favored monetary status.

Within the broad ethnic groupings there is indeed considerable mobility, especially on the occupational level. The more ambitious and opportunistic Estonians who fall in line with Soviet principles are increasingly encouraged and rewarded by the Soviets, rising in official capacity and economic station. Particularly since the death of Stalin, the tendency has been manifested to vest increasing responsibility and authority in reliable Estonians. On the other hand, among the Russian and Russian-Estonian in-migrants are those who are in the ranks of workers. They are to be found chiefly in the cities,

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particularly in the shale mining centers, but almost never on the collective farms, and then usually in some such capacity as farm chairman. They may also be found occasionally among MTS/RTS technicians or administrative personnel and in forestry stations and fishing collectives. Whatever their occupational level, the Russians and Russian-Estonians generally take precedence over Estonians of equal competence, since much of the Soviet incentive system has been based on political reliability rather than on native talent or education and experience.

Considerably less mobility exists among the Russian, Estonian, and Russian-Estonian ethnic groups on the social level than on the occupational level. For all the promulgation of dogma concerning the fraternity and equality of Soviet nationalities, allegedly little intermarriage has occurred between the Estonians and the Russians or Russian-Estonians. For a number of reasons, this would appear to be somewhat surprising. Estonian women, particularly in the child-bearing ages, greatly outnumber Estonian males. It is assumed that among the Russian population, the males predominate, especially considering the military, a segment which generally shows little reluctance to enter permanent relationships with women of the country in which they may be stationed. As elsewhere, it would also seem economically advantageous for women to marry. Several factors have probably mitigated against these seemingly predisposing circumstances favoring such marriages. It is very likely, given the militarily significant geographic location and fortress character of Estonia, along with the potentially obstructive inclinations of a conquered native people, that intermarriage between Russian military personnel and Estonian civilian women has been strongly discouraged at the discretion of local commanders. It is also possible that the Estonian women have declined to marry, in their view, "beneath them" or to incur censure of their fellow-Estonians by such a step. On the other hand, the fact that the birth rates in Estonia have been relatively higher than prewar rates, at least since 1950, is a possible indication

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that Estonian women, who substantially outnumber Estonian men, do not entirely reject the attentions of Soviet men.

Also interesting are reported Estonian-Russian relationships on other social levels. The 2 groups, it is alleged, do not patronize the same restaurants, tea houses, or clubs, but seek those with a homogeneous clientele. As the Estonians decline to attend Soviet dramas and concerts, so the Russians avoid Estonian-directed functions.

On any occupational level and whatever the ethnic affinity, Communist Party members enjoy a most privileged status. The proportional representation of Estonians in Party membership is probably small, since a substantial percentage consists of the non-Estonian military and of Russian and Russian-Estonian officialdom. Many Estonians who do join the Party or Komsomol, profess privately to do so not out of conviction but from a desire to improve their situation. It is alleged that other Estonians generally do not condemn this step.

Considerable stratification exists on an economic basis. The top elite comprises the higher republic Party and government officials, academicians, the most highly qualified scientists and engineers, the most accomplished artists, entertainers, and sportsmen. A vast discrepancy exists between the emoluments received by these categories and the wages of the mass of workers. The elite have additional advantages in terms of preferential housing and far greater access to consumer goods and luxury items. The disparity also persists in less degree between members of the intelligentsia on lower levels and the workers. Those who achieve considerable competence in such professions as industrial management and medicine, for instance, not only are relatively well-paid, but frequently have additional sources of income. Premiums granted to enterprises for outstanding work are generally parceled out among the management without benefit to the workers. While basically low-paid, doctors are entitled to carry on in their spare time a private practice which can be quite remunerative. Military officers and NCOs are well

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up in the salary scale, and even enlisted men are said to be able to afford comforts beyond the reach of the rank and file workers. This privileged group is, of course, entirely non-Estonian.

On lower middle economic levels, in occupations which require a fairly high degree of education or training, there is considerable flexibility in wage scales, depending on experience, competence, length of service, and in some cases on the nature of the agency served or type of work performed. Included in this pay category are miners, employees of national security agencies, teachers, bookkeepers, railroad technical personnel, highly skilled workers, and those just starting in the professions. Teachers receive regular wage increases and fairly respectable pensions. As are doctors, they are granted extra pay for working beyond their designated hours. Lowest in this general pay category are office personnel and technicians with routine skills and, allegedly, members of the militia. Such low pay for the latter might supply a motivation for the reported susceptibility of the police to bribery. At the base of the urban wage scale are service personnel--such as night watchmen, janitors, and charwomen--the unskilled laborers, and apprentices, all of whom work for bare subsistence pay. The economic status of workers varies according to the importance of the industry or enterprise to which they are attached, as determined, of course, by the regime. Thus, the miners are among the highest paid and workers in the food industry among the lowest. The relatively high pay of the miners, a large proportion of whom are reportably Russian, is somewhat balanced out by the higher cost of living in the shale basin.

Many of the working conditions of the mass of workers are wretched. Usually paid on a piece work basis and saddled with a required norm of output, they must frequently work overtime to fulfill their quotas, and for this they are not paid. When raw materials are unavailable or equipment out of order, they may be without work and without pay. Lack of sufficient safety measures in industry results

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sometimes in occupational accidents and diseases. The permanently disabled may received small pensions, but these are even less if there are close relatives to provide care. Since these caretaker duties may not be assumed willingly or even at all, some victims have been known to become beggars and alcoholics. The workers do not have the right to strike. They are informed that they do have rights and privileges, but it is difficult for them to determine just what these are. Much is made of the opportunity for workers to spend vacations at state resorts, but it is alleged by many that only those on higher wage levels or in privileged categories, such as Party members, can afford to pay for these holidays or are even given the chance to take advantage of them. On the contrary, the bulk of workers are even expected to devote vacation time to "voluntary" work at collective farms or construction sites. The trade unions, which nominally protect the rights of the workers, are actually primarily responsible for exerting pressures to increase labor productivity.

Until recently many restrictions were placed on job mobility from one enterprise to another. Workers, particularly in industry, were equipped with work books, which contained the complete record of employment including all administrative actions taken. In order to change his place of work the employee had to have recorded in his work book the permission of his employer to be released. It was most difficult to transfer out of enterprises concerned with important work or having a critical labor shortage. At the same time, workers with needed types of skills could be arbitrarily removed to other enterprises, even outside the republic. Within the past few years the requirement for recorded permission to seek new employment was withdrawn. Thus, in theory, the opportunity for job mobility has been greatly increased. However, strong pressures will undoubtedly be continued against leaving employment in vital industries and labor shortage areas, including the collective farms.

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Heavy penalties are inflicted for any infringement of labor discipline, such as insubordination and neglect of duties. Tardiness, for instance, is punishable by salary deductions and, if repeated, by dismissal. Such lapses are duly recorded in the work books, a procedure which puts some obstacles in the way of re-employment. Discharged office workers in particular find it difficult to obtain similar employment and must then enter other more arduous fields of work. In important activities, such as railroad transport or the chemical industry, offenders may be subjected to court trial and sentenced to remain at the same job with as much as 25 per cent reduction in pay for an extended period--even of years. Those who are unemployed, for whatever reason, may apply at labor exchange offices for work in the areas of virgin land development or large construction projects in other sections of the USSR. Such applicants are not too closely screened. Recruitment for this labor is, strictly speaking, voluntary, but pressures are frequently brought to bear on some population elements to enlist, particularly the Komsomol youth and graduating students. Although pay is substantially higher in these remote regions, there appears no great rush to volunteer, except possibly for those who are in official or personal difficulties at home.

Certain types of workers are officially accorded some minor "fringe" benefits. Housing, in theory, is supplied to workers in large and important industries, provided by the ministry or agency concerned. However, the program for new construction of this type is perennially far behind requirements. Special medical facilities are made available to certain categories of workers, such as railroad employees; a new hospital is to be built for the latter in Tallin. Miners and workers in the chemical industry are entitled to special rations of milk to offset possible poisoning brought on by their working conditions. In 1956 certain reductions in the length of the workday were instituted: the workday preceding holidays and days off was shortened; a 6-hour day for youths 16 to 18 years old and a 4-hour workday for children 15 to 16

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years old were established; and the period of maternity leave was increased.

By far the most underprivileged group of free workers in Estonia are the collective farmers. They are paid on the basis of labor days, which are calculated in terms of the type of work performed and a designated measure of output. The "labor day" may bear little relation to the effort or length of time required for a given task. In any case the monetary compensation is incredibly low and recently has even been reduced. The agricultural workers also receive pay in kind, such as stipulated amounts of grain and other food staples and a share of the produce left to the collective farm after state production quotas have been delivered. The farmer is allowed in addition his small private plot of ground and may keep a cow, sheep, goats, and poultry. From these sources he is able to supplement his family's food supplies, selling any surpluses on the collective farm market for whatever profit he can obtain. His opportunity to exploit his private plot depends upon the fulfillment of the requisite number of labor days for the collective. The number of work days required has recently been increased and attempts have been made to reduce the size of the private plots. In monetary terms the bulk of farm workers barely earn enough to supply themselves with the necessities which they must purchase at high prices.

Fishermen, who are also low in the economic hierarchy, are still somewhat better off than the collective farmer in terms of pay and working conditions. They, too, are permitted private plots and a small number of livestock. However, retention of any part of the fish catch is not allowed, and the fishermen must frequently pay more for fish at stores than the collective receives for it.

The shift of rural workers to the urban labor market was originally encouraged, but when the shortage of farm labor began to be felt, obstacles were placed in the way of indiscriminate exodus. The "defecting" agricultural worker lost his claim to quarters, private plot,

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and livestock with no assurance that he would secure work. Work books were never required for the farmers, and efforts to obtain one for purposes of work in urban areas frequently proved futile. Only limited possibilities have existed for escape from the collective farm. Demobilized soliders have the opportunity of selecting their first employment and seldom elect to return to the farm. Rural jobseekers might be accepted for vital work in heavy industry or the mines. The agricultural youth are liable to conscription into the labor reserve schools for training in industry, transportation, and farm mechanization. Collective farm workers, as well as others, always have the option of applying for work in the virgin land program or on distant construction projects. Most bound to the collective farm are the women and the aged.

Within the agricultural labor force the greatest opportunities are offered in farm and MTS/RTS administration or in operation of their technical equipment. Workers on state farms are relatively well off, with higher pay and better living conditions. Communist Party members and Komsomol youth are frequently pressured to join the collective farms and are increasingly but reluctantly doing so, gravitating to the supervisory, technical, and other less arduous positions when possible.

Forced labor is probably no longer very significant in Estonia. Formerly estimated to number as many as 15,000, forced laborers were chiefly engaged in postwar heavy construction projects, such as construction of new power plants and roadbuilding, and in mining. Camps in the vicinity of Tallin reportedly supplied labor to construction sites in the city. It is possible that some forced labor was utilized in collective farm activity. One may assume that a substantial proportion of the forced laborers were penal workers from other areas of the USSR who have for the most part been freed and possibly returned to their places of origin. Estonians convicted of political, antistate, and other major crimes, with extended sentences, were primarily shipped out

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to prison labor in remote districts of the Soviet Union. Those deportees who in unknown numbers have reportedly found their way back to Estonia, following the Soviet amnesty decrees beginning in 1953, are alleged to be in poor condition and to live somewhat precariously. Estonians currently detained in prisons or camps in the republic are chiefly those serving sentences for common criminal activities or minor offenses. Having completed their sentences, they return home and take up their lives with no particular stigma attached to their ex-prisoner status.

The status of women has hardly improved under the Soviets. During independence they were accorded equal rights of suffrage and opportunity to work or to participate in government. Now, with the combination of high prices and the low wage scales of workers, many women must work to contribute to the support of the family. While in theory all occupations are open to them, a large proportion are limited in fact by training and by requirements of the labor market, to performing routine jobs in industry, clerical office work, and even hard unskilled labor in construction, transportation, and sanitation. Most of the textile workers are women; in construction men are generally employed at skilled labor and women at unskilled labor. Women comprise by far the bulk of the underprivileged collective farm labor force.

b. Social and Cultural Indoctrination

As are all peoples of the USSR, the Estonians are exposed to a constant and pervasive barrage of socio-cultural controls and propagandistic devices calculated to force them into the pattern of the Soviet ideal. Paramount in this concentrated drive has been the effort to suppress all pride in the Estonian national heritage and achievements and to replace them with Soviet ideology, Soviet goals, and Soviet culture. The frequent complaints in the press and in Party organizations against the "survivals of bourgeois nationalism," the failures in plan fulfillment, and the paucity of evidence that Socialist realism has actually taken deep root in the nation's culture attest to

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some degree of Estonian unmalleability.

Contrary to Soviet plan, Russian has not been successful in replacing Estonian even as the language of administration and of business. In spite of requirements for intensive study of Russian in schools at all levels and despite the deluge of Russian-language technical and cultural materials, the Estonian Party Congress of 1951 conceded rather plaintively that "...the existence of a national language must be taken into account in the problem of placing cadres. Knowledge of the local language is a very real factor in reinforcing the bonds of the administrative workers with the mass of workers, who by reason of obstacles are unable to master the Russian language...lack of knowledge of the language of the local nationality is a factor which creates difficulties....the present-day Bolshevik and the experienced government and Party worker, if he does not know the language already, will master it." Soviet statistics report that 80 per cent of the books published in Estonia in 1956 were in the Estonian language.

The radios which are made so readily available to the population as an instrument of Soviet propaganda have proven to be a two-edged sword. The Estonians, who are otherwise so effectively sealed off from contact with all but Soviet peoples and publications, manifest an intense and widespread interest in the numerous foreign shortwave broadcasts within easy radius which can frequently be heard in spite of intensive Soviet jamming operations. The favorite programs are reported to be those of the Voice of America and the British Broadcasting Company and those emanating from Helsinki and Germany. It is not forbidden to listen to these broadcasts, but penalties are attached to public discussion concerning them and to any relaying of their content. News-casts are listened to particularly avidly and, in spite of sanctions, are widely discussed, providing the basis for many hopeful rumors which refute Soviet pronouncements or indicate that aid from the outside might be forthcoming. It is chiefly through this means that the Estonians have

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been encouraged in their non-acceptance of Soviet anti-Western propaganda, which deprecates the motives, capabilities, and achievements of the liberal democracies. On the other hand, the repeated failure of anticipated effective anti-Soviet action to result from such events as the Geneva Conference and the Polish-Hungarian uprisings has gradually dampened Estonian hopes for imminent relief from their situation. The compensating tendency to drift with the tide and to make the best of the immediate circumstances increases. The United States and United Kingdom, focal points of Soviet propaganda attack, nevertheless retain a great measure of their popularity among the Estonians as symbols of their own nationalist ideals and as their possible future deliverers. They have felt less friendly to France, allegedly because of Communist influence in that country. Toward Western Germany, feelings are somewhat ambivalent since, though that nation is currently in the western camp, Estonians have not forgotten the German invasion of their country.

Since the institution of the Soviet regime, all foreign travel has been barred to the Estonians. Foreign tourists have been excluded from the country, a structure which continues to be placed on Estonia despite the fact that in 1953 travel restrictions in most of the USSR were lifted and that entry to Latvia and Lithuania has recently been permitted. Within the republic, travel to certain, usually fortified, areas is prohibited. Permits are required for entry into Tallin. It has not been possible to visit the islands, and the island civilian population has reportedly been removed to the mainland. Travel between the Baltic republics, as well as into the interior of the Soviet Union, is unrestricted, with only the possibility that the traveler may be approached by security police to show identification papers and to reveal the destination and purpose of his journey. The repeal in 1954, of a USSR edict of 1947 prohibiting marriage between Soviet citizens and aliens, while applicable also in Estonia, has little significance for the population with their virtual isolation from other nationalities.

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Soviet indoctrination of children and youth through the schools and the Pioneer and Komsomol organizations has not been completely effective. Young people are strongly criticized for their lack of interest in physical work, their reluctance to enter farming and industry or to participate in the far-off virgin land and construction projects, and their apathy toward the study of the Russian language and Marxism-Leninism. Too few join the youth Party organizations and those who do participate too passively. Many of the youth are said to be involved in "hooligan" activities, which to the Soviets means anything from loitering and a propensity for jazz to criminal assault and robbery. Particularly active in the latter pursuits are reported to be the students at labor reserve schools, where discipline is ostensibly very strict. While the younger generation has no practical experience of any but Soviet life, they reportedly are impressed with the tales of the "good old days" told in secret by their elders. As everywhere in the Soviet Union and in the satellites, the students pose a serious problem in their capacity for questioning the status quo. Considerable student unrest was manifested at the time of the abortive Hungarian revolt, and the authorities brought into play the full battery of persuasive and coercive techniques to keep matters within bounds. It is these events which allegedly precipitated the dissolution of the token Estonian military units in the republic and deportations of the most troublesome youth to remote areas of the Soviet Union.

One facet of Soviet propaganda, that of "militant atheism," appears to have had some effect among the Estonian youth. Even those who are out of sympathy with the regime agree that many young people do not adhere to religious beliefs nor do they attend church. There are some instances of young people participating in religious confirmation ceremonies or religious marriages, but these appear to be rather exceptional. Among the older people the antireligious propaganda has been less successful, particularly in the rural areas. Before the war the

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Estonian Lutheran church had 180 parishes with 250 ordained ministers. Soviet radio broadcasts beamed abroad in spring of 1956 indicated that Easter services were held in 200 churches and houses of prayer of the Estonian Lutheran Diocese and that in Tallin the believers filled the churches. Apparently, only Orthodox and Lutheran churches continue to function, while other smaller denominations have virtually died out. Where practicable, the church is called upon to give its endorsement to official policy on social and moral questions. In May 1957, the Head of the Evangelical Lutheran Church of Estonia proclaimed its support and approval of Soviet peace organizations in their demands for cessation of thermonuclear weapons tests. This pronouncement followed shortly after an English-language shortwave broadcast claiming an increase in the number of parish pastors in the Estonian-Lutheran Diocese and larger maintenance appropriations for provostships and parishes.

Most elements of the population are apathetic toward pressures for their political education. Many clubhouses are not well attended, except perhaps by young people, primarily for the social facilities offered. Attendance at political lectures must frequently be bolstered by an added attraction such as a concert or dance. When Soviet festivals are organized, the workers participate, since attendance is frequently taken, but many utilize the occasion to get drunk, sing comic songs, and in general forget themselves. The country people are said to be particularly unsympathetic to efforts to raise the level of their political consciousness.

Estonians reportedly decline to attend Soviet plays because they find them boring. Recent Party criticism is directed toward the failure of Estonian writers to produce works of Soviet realism or to attack "bourgeois relics in the consciousness of the people." A speaker at the Tenth Party Congress in 1958 charged the Estonian Writers' Union with defending "ideologically doubtful works" published in the Estonian journal, Looming, a frequent object of Party criticism. Poetry

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remains on a far too personal plane, lacking fighting spirit and political keenness. Prose writers and dramatists do not adequately depict the ideal Soviet man, the builder of Communism. The 1956 Party Congress charged that mass political work is not just unsatisfactory, but is almost non-existent among the people.

Soviet policies and actions are not without their effect on the structure of family life in Estonia. Children are encouraged to become ideologically independent of their parents at an early age through Soviet indoctrination at schools and in Party youth organizations. Even the multitudinous sparetime activities in cultural, voluntary work, and sport projects are calculated to separate youth from home influence. Many adolescents are entirely removed from their homes by conscription to the labor reserve schools, from which they immediately enter employment, sometimes in distant areas. The rural young people, most affected by the requirements of labor reserve training, are seldom reunited with their families. This fact, along with the abandonment of the principle of private and inherited property and the dispersal of family groups among collective farms, is radically changing the patriarchal structure of rural families. The scope of mass and individual deportations has resulted in a substantial number of broken homes and the enforced severance of family ties. The increasing trend of youth to reject religion is one of the most significant results of the pressures to divorce young people from their cultural antecedents.

Actually, close familial ties do continue to exist. In the urban areas particularly, where housing is very critical, the young people must frequently continue to live with the family after entering employment. The greater the number of employed in the family, the more economically they can live and the higher their living standard. Even after marriage, the young couple may often take up residence as part of the common household. In this more or less necessary and extended association, the principles of the parents are bound to be reflected to

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some extent in the lives of their children. Quarters for a single person are very difficult to obtain. This situation gives some credence to the report that young Estonian men frequently marry older women who are already established in living quarters, particularly widows.

Estonians have tended generally to have fewer children than are common in Eastern Europe and Russia. In spite of Soviet incentives to raise the birth rate--such as awards and financial increments to mothers of large families and, until recently, the taxes required from families with less than 3 children--instances of parents with more than 2 children are the exception rather than the rule, especially in urban areas. It is alleged that even the non-Estonian in-migrants apparently have fewer than the number of children common in their original localities.

The great mass of Estonians is reported to be completely unimpressed by the constant reiterations propagandizing their happy new life under the Soviets. They have too many comparisons and too broad a knowledge of other systems with which to check the Soviet argument. Among the least convinced would appear to be the collective farm workers, who find plenty of grist for refutation in their substandard living conditions. Party dissatisfaction continues to be expressed vigorously over the tenacity with which surviving "kulak elements" persist in disrupting the collective farm program and the capitalistic tendency of the farmer to concentrate on his private plot at the expense of the collective. Particularly unpalatable to the Soviets is the subversive but persistent propagation of the theory that the Estonian peasant personality is completely unadaptable to the system of collective agriculture.

After Stalin's death, the Estonians were quick to take advantage of the somewhat more relaxed atmosphere in respect to criticism of their situation and demands for greater freedom. The intellectuals in particular--artists and students--sought greater opportunity of expression

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and broader cultural horizons. As elsewhere, the authorities were constrained to curb these trends by various means. To some extent, however, restrictions which were lifted at the time have not been completely reinstated. Among the masses, criticism of tangible conditions is condoned, but open dissatisfaction with the Soviet system in principle is still hazardous.

3. Cohesions and Tensions

The basic cohesiveness of the Soviet regime in Estonia is undermined, to some extent, by a number of political and psychological tensions. Because of the strong nationalistic proclivities of the Estonians and the memory of their brief but rewarding experiment of independent government, the sub-surface political dissatisfactions with the Soviet regime are probably particularly significant in this republic. Attesting to this hypothesis are the slow rate at which Estonians have become identified with the high-level administration of government, either through choice or through their unreliability from the Soviet point of view, their lack of enthusiasm for joining the Party organizations, and their apathy toward political indoctrination and education. If any credence is to be given to refugee and returned prisoner-of-war reports on the Estonian situation, virtually the only information available to the outside world on the current tenor of popular feeling, the mass of the people nurse the hope and the belief that the Western political powers, with whom they identify, will sooner or later force the Soviets out of Estonia and return her to independence.

A certain measure of loyalty to the Soviet system, or at least a predisposition toward the maintenance of the status quo, could be expected from those who benefit by it. These include the Russians and Russian-Estonians who enjoy positions of power and privilege and those Estonians who, with or without Communist convictions, have entered the system voluntarily to reap its advantages. Many of the latter are individuals who could not go so far on native talent and ability as they can

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on political reliability. In general, Russians, Russian-Estonians, and other Soviet nationality groups experience a higher living standard here than is available to them elsewhere and thus have some vested interest in sustaining the situation.

The Soviets have, since 1953, made numerous concessions in the interest of strengthening Estonian acceptance of the regime and increasing their active cooperation. Higher official positions have become available to "reliable" Estonians, greater freedom to criticize economic conditions have been allowed, and at least token consideration has been given to the resulting spate of complaints. Yet, restrictive and even punitive measures have had to be instituted on occasion to hold in check reactions which were over-responsive. Terroristic measures, such as the threat of disappearance and deportation, as well as the presence of a large military establishment, are indeed a force for the stabilization of Soviet control, but at the same time fuel the covert hostility of the people toward the harshness of the regime. Any attacks on the principles of the system or on communism itself continue to be dealt with summarily.

Since Estonians had already attained on their own a relatively advanced degree of progress in agriculture, technology, and standard of living, any element of discrimination in respect to their relationships with other resident Soviet nationalities is based not so much on implied racial inferiority, as for instance in Soviet Asia, but rather on the psychology of conqueror and vanquished, of coercive ruler and unwilling ruled. The 2 major protagonists, Russians and Estonians, are each convinced of the intrinsic superiority of their own national ideals and cultural achievements and are equally irritated by the chauvinism of the other.

As already indicated, the individual ethnic groups are said to keep pretty much to themselves. The Russians and Estonians appear to avoid mutual social events, meeting places, and cultural

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experiences outside of work and required functions. The Estonians are bound together by their common resentment of alien control, their shared deprivation, and their almost universal desire for freedom. Even those who enter official positions or join the Party organizations purport privately to do so with reservations and generally do not seem to lose face with their fellow-Estonians for their opportunistic motives. In at least one instance, status group loyalties may override ethnic differentiations. The Ukrainians, who are probably to be found mostly among the ranks of workers and farmers, are reported to be oriented much more toward the Estonians than toward the Russians, regarding the latter as aggressors against their own national sovereignty. The common bond of subjugation shared by the Estonians with the other Baltic peoples has served to dissolve, at least for the time being, many of their national differences. But even the most sanguine among them seem to agree that, in the event that their freedom should be regained, a Baltic federation in the interests of mutual security would once again founder on the respective nationalistic ambitions of the individual states.

Religious tensions are probably not a critical issue for the Soviets at this time, at least on the surface. By prohibiting religious publications and religious instruction in schools, by abolishing training facilities for the clergy, and by conducting widespread anti-religious propaganda, the Soviets have certainly placed many obstacles in the way of Estonian freedom to worship. But those individuals--particularly to be found among the older generation--who persist in maintaining their religious beliefs and observances are allowed to go their own way, and the clergy and the churches are left relatively alone as long as they do not seek to influence political or economic life except in concert with Soviet policy. Recently, the authorities have reportedly permitted the reopening of a small theological seminary. The fact that such small concessions are occasionally made indicates both Soviet knowledge of the tenacity of religious conviction among some of the people and

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complacency that the situation is well in hand. The Soviets are possibly encouraged by the apparent effectiveness of anti-religious indoctrination among the youth, who are their main concern for the future success of the Communist program. While some tensions may have been created in the religious sphere between parents adhering to their faith and children alienated from the church, this schism between youth and its cultural past is not clearly expressed in any other area.

With the effective throttling of opportunity for significant political and cultural resistance activity, the field of major concern to the Soviets is popular dissatisfaction with economic conditions. The fact that effective Soviet controls over a Soviet economy are proving increasingly successful in achieving Soviet goals engenders little satisfaction among a native population which has known the greater rewards of self-government and higher living standards. The maintenance of high prices and low wages, along with serious shortages of housing, some consumer goods, and certain foodstuffs, are a strong deterrent to Estonian acceptance of the regime. Estonians are by no means strangers to government controls over aspects of the economy--even during independence--but would prefer to choose their own leader and to develop the country for their own benefit. The people take full advantage of their chance for freer criticism of aspects of their daily life, and the authorities do attempt to recognize and act upon their complaints, at least superficially. Compounding the economic tensions experienced among the mass of workers are the inequities of the class system which elevates and rewards, sometimes extravagantly, those who perpetuate an unwelcome political and economic domination. Particularly resented and avoided by the Estonians are the alien beneficiaries of the system, the Russians and Russian-Estonians, who are regarded as interlopers.

Some of the sociological and psychological tensions engendered by the economic situation may well be relieved under the new and more locally autonomous industrial reorganization. Faced with

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greater responsibility for control over their own supply of industrial and consumer goods, food, and housing, the Estonians may have less justification for blaming others for dissatisfaction with their living conditions. The increased authority for decision and action at lower levels of economic management may open up the opportunity of higher social and material status for qualified individuals, notwithstanding their ethnic or political affinity. Increased opportunity to rise in prestige and authority would thus remove some of the basis for resentment against the class system. Native beneficiaries of the new system may be buoyed in nationalistic pride by their greater independence in the direction of their country's economic destiny. The priority theoretically to be accorded to fulfilling the industrial needs of the regional and local economy, if effected and effective, could result in greater material as well as psychological satisfactions among the population at large. Nevertheless, since it is likely that the Soviets will not allow adjustments to the new situation to interfere drastically with the fixed goals for the over-all economy and for the political and social structure, some areas of friction may be anticipated to continue. The general response to the changed situation is, as yet, an unknown quantity. Degrees of upheaval and disorganization could well be foreseen in such basic conversions as are now under way in the economic situation. The opportunity and practice of more independent action in this one important sphere might have some impact on the individual and collective response in other areas which are critical to the maintenance of Soviet control.

Probably the most significant disaffection will continue to be found among the collective farmers, with their depressed living standards, hard working conditions, and limited opportunity to escape their lot. During independence under a regime which favored an agrarian economy, the farmers were among the most well-off and constituted a potent political force. The farmers made virtually no response to the

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original Soviet pressures for voluntary formation of collectives, and resisted to the last. Only through the harshest of terroristic devices and economic sanctions was collectivization finally implemented. Communist complaints even now continue to be directed at the persistence of "kulak" and capitalistic ideology in the countryside. The farmers were long the only source of support for the forest partisans and ceased to be so only when Soviet retaliative measures and stringent agricultural levies and quotas made continued aid impossible.

Other principal groups with greatest motivation for hostility toward the regime, but with little capability for its effective expression, are the families of deportees, who were subjected to some discriminatory practices, and unknown numbers of returned deportees, who live at best insecurely.

The alleged Estonian tendency toward pessimism, doubtless a heritage of their recurring fate at the hands of oppressive alien conquerors, is compensated by a philosophical bent which enables them to adjust to the inevitable in the interest of survival. Estonians are considered a people willing to work to better their economic positions, and, to the extent that this goal may be achieved under the Soviet regime, they appear to be outwardly compliant without embracing the Communist system with enthusiasm. Nevertheless, the nature of popular reaction to the system may be patent in certain undesirable behavior patterns which frequently receive official attention.

Black market activity has already been discussed at length in another section of this report. Whereas the phenomenon derives basically from the economic inadequacies of daily life, it is, on the psychological level, a method of circumventing the regime. Crimes and hooliganism are reported to have increased significantly under Soviet rule, particularly in the cities. Russians are said to play some role in these activities, especially sailors, merchant seamen, and demobilized soldiers. Even school youth are participating in crime, and the militia

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appears to be ineffectual in controlling such incidents, preferring to avoid the scene of any disturbance. Thus, it is considered unsafe to travel in certain areas after nightfall. The miscreants are no respecters of persons, and Communist Party and other officials suffer as much as ordinary citizens.

There is good evidence that excessive drinking among Estonians presents some problems to the regime. Consumer statistics indicate higher expenditures for alcoholic beverages than in any other republic. Intoxicated individuals are said to be a common sight. The authorities have unsuccessfully instituted campaigns from time to time to reduce immoderate alcoholic consumption and its unwelcome aftermath of tardiness, absenteeism, accidents, and crime. The campaign against alcoholism will be renewed under a proposed Soviet law to restrict liquor consumption in restaurants.

For a considerable time there have been no significant manifestations of open antiregime activity, although volunteer Communist and MVD "annihilation" units were said to be maintained in all regions during the postwar years to check possible operations of the forest partisans. From time to time, many of those in danger from the regime were reported to join the guerilla groups. Probably few, if any, of the latter are still operating and, if so, are chiefly concerned with obtaining food to survive. As indicated previously, no mass deportations from Estonia are known to have occurred since 1949. However, disappearances and deportations on an individual basis have continued. A substantial transport of Baltic prisoners, including Estonians, is reported to have arrived in Kolyma in May 1954. This period would have followed a few months after the execution of Beriia and shortly after that of Abakumov, a time of purges of questionable elements in many areas of the USSR. The transport was said to be made up of Baltic citizens who had participated in wartime national legions and in the Home Guard, members of nationalist organizations, and representatives of the intelligentsia, former government employees, and farm workers.

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After the riots in Poland in the summer of 1956, the Soviets allegedly took the precautionary measure of transferring for duty in other areas of the Soviet Union the token units of Estonian soldiers who had been retained in the republic as part of the armed forces. Later, in December 1956, after the Hungarian uprising, anti-Soviet demonstrations were reported by visiting foreign students to have broken out in Tallin among students and workers. They demanded withdrawal of Soviet forces and the freeing of those imprisoned for campaigning for independence from Soviet rule. Further reports in the foreign press claim that, as a consequence, some of the most troublesome of the youth were deported to remote areas of the Soviet Union and that further conscription of workers for the virgin lands regions is planned.

In spite of the occasional areas of weakness which are revealed, the present strength of the Soviet position in Estonia seems relatively unassailable from within. Nevertheless, Estonian pessimism does not go so far as to negate the possibility of once again securing freedom. There is reason to believe that Estonians would be receptive to help from almost any source, particularly the Western democracies, to regain their independence. It is their secret conviction that war must eventually come and that it is only through war that they will be liberated. They are impressed with the Soviet build-up of Estonian industry and look forward to the time when the Russians will be forced to depart and the new factories and power installations will be left behind to enrich the Estonian economy.

B. Civil Defense and Evacuation

Operational aspects of the republic civil defense program are coordinated by the MVD Department of Local Civil Defense (GUMFVO). A directorate of the Ministry of Internal Affairs (MVD) controls all fire defense and prevention phases of civil defense activity, and the MVD militia is charged with the maintenance of public order in emergencies. The Estonskaya SSR Society for Cooperation with Army, Air Force, and

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Navy (DOSAAF) is the agency chiefly responsible for civil defense training, providing instruction in aircraft observation, radio operation, and other defense requirements. The republic Red Cross Society trains emergency medical personnel and offers courses in first-aid. It functions through local Public Health Departments (under the Estonskaya SSR Ministry of Public Health), which are responsible for operational control of medical facilities and the enforcement of local health measures and sanitary regulations. Activities of the various agencies concerned with the civil defense program are coordinated by the Estonskaya SSR Council of Ministers through the local rayon, city, and town Executive Committees.

The location and extent of construction of underground shelters in Estonia is not known. The northern half of the republic is generally unsuited to either tunnel-type or bunker-type underground installations. Limited sections, however, are suited to bunker-type installations: a small area around Tallin; a larger area extending E from the Gulf of Riga; a narrow strip W of Lakes Peipus and Pskov; and a portion of the region surrounding Lake Vyrtsyarv and extending S to the republic boundary.

During any extended crisis, food supplies in the republic would undoubtedly present a considerable problem. Individual enterprises, particularly those in heavy industry, would assume greater responsibility for procurement of food to supply their own employees. Significant stockpiling of food reserves for emergency is hampered by present storage facilities which are inadequate even for normal retail trade stocks. Rural areas would be at some advantage since they are the primary source of agricultural supplies and possess larger reserves owing, in part, to a slower rate of turnover. Private garden plots would also supply some of the immediate food needs for farmers, and livestock-dairy foodstuffs would be more accessible. In the event of war, destruction would be concentrated in the urban industrial centers, and urban food reserves, already smaller in comparison with rural reserves, would be endangered by

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probable exposure to damage and the breakdown of the transportation system.

At the end of 1955, total reserves of food products available to civilians through the retail trade network were sufficient for 29 days of normal trade turnover (see Table XXII). Tallin, however, had reserves sufficient only for 19 days. The existence or extent of military food stockpiles is not known.

TABLE XXII

TOTAL FOOD RESERVES IN RETAIL NETWORK,
AT END OF 1955

<u>Item</u>	<u>In days of trade turnover</u>
Meat and meat products	4
Fish	31
Canned goods	97
Fats	11
Milk	8
Cheese	27
Eggs	6
Sugar	7
Confectionery	21
Tea	137
Salt	395
Flour and cereals	30
Potatoes	103
Vegetables	66
Fruit	28
Alcoholic and nonalcoholic beverages and other food products	<u>50</u>
Total food products	29

Reserve supplies of meat, meat and dairy products, fish, fats, sugar, flour, and cereals were especially short. Salt, tea, and potatoes were the only items stocked in significant quantities. In case of urban mass evacuation to rural areas, even the larger reserve stocks of food-stuffs in the countryside would be dangerously depleted in a relatively short time.

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The many lakes and rivers in Estonia constitute a plentiful source of water, even for emergencies. Ground water, ranging from very shallow to deep, is everywhere available in small to moderate quantities and is of fair to good quality. In spite of the availability of water, the breakdown of water systems or the existence of war conditions could lead to utilization of contaminated sources and consequent epidemics.

No Soviet plans for evacuation of the republic or its urban areas are known to exist. Certain factors, however, suggest some of the possibilities. In the event of war, substantial numbers of the inhabitants, as intent on departing the Soviet Union as on vacating the zone of military activity, might attempt to escape in small boats, particularly from the coastal areas and the islands, to Finland, Sweden, and the other Scandinavian countries. The Soviets would certainly discourage this maneuver, with armed force if necessary, and flight from the heavily fortified islands and mainland ports would be made particularly difficult. In winter, some of the exit points from the N coast would be ice-bound for a period. Escape by land or sea to the S and W would probably only lead into areas under even heavier attack. Evacuees from the S part of Sarema Island, who might be tempted to aim for the nearest mainland point in Latvia, would possibly run into conflict with Latvian escapees from the naval ports of Ljyepaya, Ventspils, and Riga seeking shelter in this area.

Civilian movement inland by rail or motor vehicle would be severely limited, since transport facilities would in all probability be commandeered for military purposes and since private vehicles are at a minimum. Further, vehicular traffic, except in the northernmost areas, is hampered by the impassability of roads in the spring thaws. Cross-country movement eastward from the W coastal areas is impeded by large areas of marshland extending from the N coast in the vicinity of Maardu and E of Tallin, in an E-W diagonal band to the latitude of Pyarnu. More scattered swamps occur to the W and N of Lake Peipus.

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Exclusive of the extensive marsh areas, cross-country pedestrian travel is relatively feasible at all times, owing to the mildness of the climate and the absence of mountains. Numerous rivers throughout the republic would constitute some impediment, but for the most part these are not wide and presumably the small bridges spanning them would not be significant targets. In cross-country movement, the river banks should probably be avoided since they are generally composed of peat and muck. The only navigable river route, from Lake Vyrtsyary via the Emayygi River through Tartu and into Lake Peipus, would provide some access--for those fortunate enough to secure boat passage--into Leningradskaya and Pskovskaya Oblasts. The continuance of the river route down the Narva River to the Gulf of Finland would not be feasible, since it would lead into the vulnerable area of Narva with its important power installations.

Movement by land across the northern part of the country parallel to the coast and along the main road and rail route of the republic would necessitate passage through the shale basin, a prime industrial target. These transportation lines, which comprise an important supply route to the city of Leningrad, itself a major war objective, would be heavily militarized and probably under particular attack. Passage across Lakes Peipus and Pskov into Leningradskaya and Pskovskaya Oblasts would be circumscribed by the availability of fishing craft and small boats.

The most logical route for evacuation of all segments of the population is toward the SE border of the republic, crossing from Vastselinaskiy Rayon into Pskovskaya Oblast in the vicinity of Pechory. Minor hurdles in this direction, for evacuees from the W particularly, consist of a range of hills near Otepya and S of Tartu and another range extending from S of Vyru to the border S of Pechory. In the first range elevations are no higher than 700 feet, but in the second, they range to more than 1,500 feet. The rail lines in this area, running S from Tartu and E from Valga, avoid the hilly regions, but since they are also Leningrad supply routes, they probably should not be too closely followed.

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Among urban evacuees, the inhabitants of Tallin, Pyarnu, and the shale basin would be in the most hazardous situation. If escape by sea were closed to the Tallin population and movement to the E through the northern industrial target area seemed, as likely, unfeasible, refugees would have to traverse the whole republic from NW to SE. Their best route would be via the improved road, which bisects the marshy belt and leads through Tartu to Vyru and thence cross-country to the eastern border. The occupants of Pyarnu have access to roads running S along the coast to Latviyskaya SSR and SE across the republic via Tyrva and Vyru to the eastern border at Pechory. A rail line runs from Pyarnu as far as Myysakyula. The population of Narva and the centers of the shale basin would have the limited choice of crossing the Narva River into Leningradskaya Oblast and escaping S from Leningrad or following the western borders of Lakes Peipus and Pskov to join the rest of the evacuees through the exit near Pechory.

It can readily be seen that the channeling of refugees into one such narrow escape corridor would put an impossible strain on support capabilities for food and shelter, increasing at each point where paths converged. While urban areas occur with decreasing frequency toward the SE, with none at all in Pylvaskiy and Vastselinaskiy Rayons, it is extremely doubtful that even these agriculture-oriented areas could sustain any such mass exodus. And the farmers themselves might be well represented among those in flight. It seems inevitable that only a portion of refugees could successfully achieve an exit from the republic. Probably the bulk of the rural population in the areas away from the coast would do as well to remain where they were. Some of the inland cities and urban settlements could absorb a certain number of refugees for a period. But the most obvious course for the majority of coastal dwellers and the inhabitants of the besieged urban industrial centers would be to move inland to the nearest agricultural areas, dispersing themselves to live as best they could on the countryside.

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The many airfields in the republic would probably be restricted to military activity. However, some facilities would undoubtedly be made available to remove important officials and technicians by air to the interior of the Soviet Union.

C. Medical Facilities

Quantitatively, medical services in Estonia have progressed under the Soviet regime. The number of hospitals in the republic has increased about 4 times since 1940 with a reported 1956 total of 235, including rayon hospitals, as well as district hospitals in local medical service areas. At the same time, however, the number of hospital beds has increased only about 100 per cent to a total of 10,200 in 1956--an average of 8.9 beds per 1,000 population. From 1940 to 1956, the number of doctors and dentists combined increased 139 per cent to 2,520; of these, 2,381 are doctors and only 139 are dentists. The number of doctors and dentists per 1,000 population increased from 0.9 to 2.2 yielding a ratio of one doctor to 483 people as against 1,222 in 1940. The shortage of dentists in Estonia, as elsewhere in the USSR, remains critical, with a ratio of one dentist to every 8,500 persons.

Much of the progress was made in the years from 1951 to 1955, when existing medical facilities were expanded and improved, 30 new X-ray centers were established, and new hospitals were built, particularly in the cities of the shale basin. The latter include medical centers in Kokhtla-Yarve, Kiviyli, and Yykhvi, with a total of 650 beds (where only 25 existed before the war) and 123 doctors in attendance. Hospitals with dispensaries have been set up in shale-mining settlements. All rayon hospitals now have X-ray centers. The number of physio-therapy centers has increased from 61 in 1950 to 97 in 1954. During the same period, clinical laboratories increased from 78 to 120.

Additional medical facilities in the republic include 49 health epidemiological stations, 123 health centers in industrial enterprises, and 122 medical-assistance and obstetrical centers in villages. Only

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12.5 per cent of state farms had medical assistance points in 1955. The number of sanatoriums increased from 9 in 1945 to 40 in 1950. Since then, sanatorium facilities have remained fairly constant, with a capacity of 3,485 beds. The number of rest homes has declined since 1940. In addition to the 2,520 doctors and dentists, there are 7,128 semiprofessional medical workers trained in specialized secondary schools. Of the 1,992 doctors at facilities directed by the Estonskaya SSR Ministry of Health, 71 per cent are women. Reportedly, 86 per cent of workers and employees in the public health field are women.

There are 2 major centers for medical research and training in the republic: the Estonskaya SSR Academy of Sciences has a Department of Medical Sciences; at Tartu State University, the medical faculty includes departments of general medicine, pharmacology, and dentistry. Many doctors and medical workers receive special training at the medical institutes in Leningrad and Moskva. The medical school in Tallin trains orderlies, midwives, and nurses for hospitals, orphanages, and other service. The school accepts students between the ages of 14 and 30 who have a 7-year education.

In Tallin, appropriations for health care in 1954 were said to represent about one-third of the total city budget. Health and welfare facilities in the city as of 1956 include the republic hospital with 18 specialized departments, which is also a training base for rural doctors; a children's hospital; 9 other hospitals; several medical aviation stations and first aid stations; a children's sanatorium; and a children's home. Other facilities in Tallin include the following: 12 polyclinics; 6 women's and children's consultation points; 6 dispensaries; 18 pharmacies; 5 sanitation-epidemiological stations; 60 medical aid stations at enterprises; and 18 nurseries. Important medical training facilities in the capital city are the Institute for Experimental and Clinical Medicine, under the Estonian Academy of Sciences, and the Research Institute in Epidemiology, Microbiology, and Hygiene.

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For all the expansion in the number and availability of medical facilities in the republic, great shortcomings still exist, even from the Soviet point of view. Uneven distribution of medical personnel throughout the republic results in a frequent shortage of doctors in rural areas. Hospitals are often merely dwellings adapted for the purpose. The network of medical institutions in some major cities is still insufficient, particularly in Tallin. In Tartu where hospitals were severely damaged during the war, no new hospitals are known to have been built, although the population has increased considerably. Official criticism is directed at many facets of the public health service. The plan for capital construction of medical institutions is consistently underfulfilled. In many places, public education in sanitation and preventive medicine is not sufficiently widespread. For lack of necessary equipment, doctors and hospitals frequently make wrong diagnoses. Generally speaking, reserves of medicine are too small, and the new drugs are in very short supply. One of the most critical problems is the shortage of housing for medical personnel. Many must live in the hospitals, thus limiting the space available for patient care.

The greatest shortage of doctors exists in the countryside where living and sanitary conditions are the lowest. Electric service to hospitals is frequently poor in quantity and quality and some water shortages occur. Hospitals are too seldom equipped with refrigerators and laundries. There are few ambulances; in many medical districts, particularly in rural areas, horse-carts are the only available means of transportation.

Doctors just starting their professional careers are among the lowest paid categories of state employees. Since they are allowed a private practice, many of them tend to put their more lucrative private practice before the public welfare. The insensitive attitude of doctors and hospitals toward the patients is a frequent target of attack. Complaints from the public about the medical services frequently appear in

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the press. Dissatisfaction is expressed with conditions at many hospitals: untrained staffs, poorly organized X-ray facilities, sparseness and poor quality of food, limited supplies of linen, and lack of fuel. Dental services are poorly organized and there are not enough dentists to give adequate care to either children or adults.

Tuberculosis is the major health problem, resulting in the disability of many workers and employees in the republic. Between 1951 and 1955, the number of fresh cases of tuberculosis reported among the rural population showed no decrease. Prophylactic activities are limited and insufficient consideration is given to the care of infected persons. The incidence of tuberculosis is particularly high in the shale basin where the disease strikes a good many children, as well as workers.

Under current plans, some improvement in health facilities is forecast for Estonia. The 1958 plan envisaged an increase in the number of hospital beds to 10,840. Hospitals for the care of infectious diseases were to have been expanded and a new tuberculosis sanatorium was to be opened in Tallin. The plan also called for an increase in the number of vacancies in homes for the disabled and the aged. Longer range goals include the addition of 1,500 hospital beds, a maternity home, and a psychoneurological dispensary to Estonian medical facilities by 1960. During this period, the number of doctors is to increase by 700.

For the population as a whole, the availability of medical services is increasing appreciably, although the quality of health care leaves much to be desired. For prestige and high-income groups, superior services are undoubtedly available; a special hospital with a well-stocked pharmacy for the use of top functionaries of the Communist Party and government is reported in Tallin. In general, the state of health services in Estonskaya SSR is probably about average or slightly better than in the USSR as a whole.

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D. Educational and Cultural Institutions

The educational system in Estonskaya SSR is comprised of pre-school institutions, a general educational network of primary, 7-year, and secondary schools, schools for working and rural youth, tekhnikums for specialized vocational training, and institutions of higher education.

Pre-school institutions (most nursery schools and all creches) and schools for rural and working youth are under the supervision of the rayon and municipal executive committees' education departments. These departments, in turn, are subordinate to the Estonskaya SSR Ministry of Education. Pre-school institutions in the republic are operated primarily by local economic enterprises, producers' cooperatives, trade unions and collective farms. In addition, the Estonskaya SSR Ministry of Public Health supervises all activities in creches, as well as physical education and medical care in nursery schools. In 1956 there were 181 nursery schools in Estonia accommodating 9,103 children, a considerable increase from 1940 when 5,213 children were enrolled in 91 nursery schools.

The administration of the various segments of the general educational system is primarily the responsibility of the Republic Ministry of Education. The USSR Ministry of Transportation controls a number of railroad transport schools in urban areas. The Estonskaya SSR Ministry of Education issues regulations in regard to methods of instruction, curricula, and the use of textbooks in the general school system. It supervises the allocation of funds, capital repair, and the construction of new facilities, handles appointments to teaching staffs and supervises teacher training. Through a network of school inspectors, the ministry verifies the quality of instruction and adherence to rules and regulations in the various schools. The Ministry of Education is responsible, in turn, to the Estonskaya SSR Council of Ministers, which, through the USSR Council of Ministers, receives final guidance in the

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matter of formulating educational policy from the USSR Communist Party Central Committee's Section on School Affairs.

The core of the Estonian educational system consists of 3 types of general educational schools: primary (grades 1-4), 7-year (grades 1-7), and secondary (grades 1-11). In 1956/57 there were 1,117 primary, 7-year, and secondary schools in Estonia, with a reported enrollment of 152,300 students. Attendance in the general schools is compulsory through the first 7 grades, and in urban areas it has been extended to include grades 8-11 in the secondary school. School attendance generally begins at age 7 and embraces either a 7- or 10-year period. Some students enter school at age 8 and continue through an extra grade--11.

The total of 152,300 students represents a net increase of 32,000 over the last prewar enrollment figure of 119,600 (1940/41). Since the number of children less than 15 years of age is smaller than in 1922 and only slightly greater than in 1940, the increase in students is chiefly attributable to a broadening of the educational base, probably in the rural areas. The wartime and postwar birth deficit probably left its greatest mark on the Estonian educational system between 1951 and 1955, when school enrollment dropped, particularly among children aged 7 to 12. The effects of this decrease on subsequent school enrollment through the higher grades should not last beyond 1963. At the same time, in regard to total school enrollment, the losses in the affected age groups, already partially compensated for by in-migration, will be further offset and possibly more than made up, as the larger numbers of children born in the postwar period continue through the school system.

In line with the general urban migration which has taken place in Estonia under the Soviet regime, school enrollment has become increasingly urban; rural school enrollment which accounted for 63 per cent of total attendance in 1940/41 declined to 31 per cent in 1956/57.

TABLE XXIII

EDUCATIONAL FACILITIES AND ENROLLMENT:
1956/57

Type of School	Schools			Students			Teachers		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Primary	542	7	535	13,800	800	13,000	na	na	na
7-Year Schools	450	49	401	60,300	17,200	43,100	na	na	na
Secondary Schools	125	99	26	78,200	71,100	7,100	na	na	na
Schools for blind & deaf children	6	4	2	800	600	200	na	na	na
Total	1,123	159	964	153,100	89,700	63,400	10,100	4,800	5,300
Schools for working youth	62	na	na	10,070	na	na	849	na	na
Schools for rural youth	11	--	11	152	--	152	57	--	57
Adult Schools	1	na	na	2,578	na	na	na	na	na
Total	74	na	na	11,800	na	na			
Tekhnikums and specialized secondary schools (incl. correspondence students)	46	na	na	15,600	na	na	na	na	na
Higher educational institutions (incl. correspondence students)	6	6	--	11,900	na	na	na	na	na
Total	52	na	na	27,500	na	na	na	na	na
TOTAL	1,249			192,200					

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The widest urban-rural difference occurs in grades 8-11 where urban areas account for almost 91 per cent of the total enrollment. In the lower grades, the distribution is somewhat more equal, the urban enrollment totaling 54 per cent in grades 1-4, 51 per cent in grades 5-7.

Slightly more than half of the students enrolled in the general educational schools under the jurisdiction of the Ministry of Education are girls. The preponderance of female students increases as the grades ascend. Boys outnumber girls in the primary grades where 47.3 per cent of the enrollment is female, but by the upper grades (8-11), girls comprise 61.8 per cent of the total. In schools under the Ministry of Transportation, girls comprise 54.3 per cent of the primary grades and 62.7 per cent of grades 8-11. The large proportion of female students reflects the general preponderance of females in the Estonian population, as well as the fact that boys are more apt to leave school to join the labor force after the required 7 years have been completed.

The total number of general educational schools in the republic was reported to be 1,123 in 1956/57. School destruction during the war was great and has not yet been fully repaired; by 1956, only 68 of the 198 schools destroyed had been replaced. As student enrollment is well over the prewar level, it is likely that crowded conditions exist especially in urban areas which must accommodate 59 per cent of the republic's students in 14 per cent of its schools. This discrepancy is mitigated somewhat by the fact that urban schools are generally larger than those in rural areas. Double sessions occur frequently, however, particularly in urban areas. Reports indicate that Estonian authorities are aware of the school problem and are giving increased consideration to new school construction under the Seven-Year Plan. Recent sources indicate that 33 schools are now under construction and that, between 1959 and 1965, 53 new secondary schools, 18 7-year schools and 3 special schools are to be built.

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The 1,103 general educational schools under the jurisdiction of the Ministry of Education employed 9,512 teachers and administrators in 1956/57, an increase of 555 over the 1955/56 total. Of the 7,212 teachers, slightly more than half were employed in rural areas. Since urban enrollment considerably exceeds rural enrollment, the ratio of teachers to students is much more favorable in rural schools (1:17) than in city schools (1:25). However, both ratios are somewhat better than those prevailing in the United States. On the other hand, only 17.1 per cent of the teachers have a higher education, and 50.4 per cent have gone no farther than secondary school. About 80 per cent of the teachers in the primary, 7-year, and secondary schools are women. Among total workers and employees in education, 76 per cent are women.

The curriculum in Soviet schools is generally quite uniform throughout the USSR. In Estonia, the course of instruction in the general educational schools stresses language training, mathematics, science, history, and geography. Instruction in the Estonian school system is conducted in 2 languages--Estonian and Russian--although Estonian predominates in the great majority of schools. In 1956/57 Estonian was the language of instruction in 948 schools and Russian in only 72. There were 89 schools in which instruction was given in both languages. About 33,600 or 22 per cent of the students were instructed in the Russian language, while 143,100 were taught in Estonian. During the past few years, practical training in industrial and agricultural pursuits within the upper grades has been intensified, and will probably be emphasized even more strongly with the proposed reorganization of education under the Seven-Year Plan.

In addition to the general educational schools, there are a number of schools maintained for working and rural youth, and special evening schools for adult education. The schools for working youth are open to young people between the ages 14-25 who are working in industrial enterprises and wish to complete their education at the same time. They

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contain the equivalent of grades 1-11 and operate on 3 shifts (morning, afternoon, and evening) so that students may arrange attendance according to work schedule. In 1956/57, there were 62 such schools with a total enrollment of 10,070 students. The schools for rural youth operate in the evening only and include grades 1-7. In 1956/57 there were 11 of these schools with 152 enrollees. Adult evening schools include grades 5-10. In 1956/57, only one of these schools was in existence with an estimated enrollment of 2,600.

General schooling in Estonia is supplemented by a system of specialized technical training administered in semi-professional secondary schools and tekhnikums. Prior to the reorganization of industrial administration in 1957, the republic's tekhnikums and semi-professional schools were financed and operated by various ministries. Following the reorganization, these schools were transferred to the newly established Estonskaya SSR Council of National Economy. It is presumed, however, that the Chief Directorate of Secondary Semi-Professional Education, a division of the USSR Ministry of Higher Education, continues to supervise the curricula and training programs and determines the use of textbooks and the methods of instruction. This agency also establishes enrollment quotas, authorizes new facilities, and coordinates the placement of graduates.

The tekhnikums annually turn out a large group of specialists who obtain intensive training in a wide variety of occupations during a 2 to 4 year course of instruction. Students may enter the tekhnikums upon completion of either the 7-year or 11-year schools. The tekhnikums offer courses in practical engineering, industrial, mining, construction, and transportation operations, agricultural techniques, forestry, medicine, pedagogy, and the arts. Many of the tekhnikums have evening and correspondence departments and work closely with the industrial enterprises for which they train personnel. For instance, there is a shale reprocessing tekhnikum at Kokhtla-Yarva which gives instruction in the

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technology of petroleum, gas, and artificial liquid fuels. In 1956/57, there were 46 tekhnikums and special secondary schools in Estonia with a total enrollment of 15,600, of which 53.1 per cent were women.

Higher educational institutions in Estonia, subordinate to the USSR Ministry of Higher Education, emphasize training in the sciences, engineering, agriculture, and pedagogy, rather than the pursuit of the liberal arts. In 1956/57 there were 6 higher educational institutions in Estonia with approximately 11,900 students (including 3,400 enrolled in correspondence courses). Of these, 52.4 per cent were women. The number of students in Estonian higher educational institutions has increased approximately 2.5 times since 1940, but the rate of increase has been relatively slight in the past 4 years. This is perhaps a result of the recent Soviet policy of limiting the number of entrants into higher institutions of learning and encouraging students to take positions in industry and agriculture directly after graduation from secondary school. The opportunity of attending higher educational institutions is most available to children of the intelligentsia, to those who have excelled in their studies throughout the school system, and especially to those who show political precocity such as evidenced in active Komsomol participation. The Soviets are known to discriminate against children of politically unreliable persons, deportees, and clergymen.

Following is a list of Estonian higher educational institutions and their locations:

<u>Institution</u>	<u>Location</u>
Tartu State University	Tartu
Tallin Polytechnical Institute	Tallin
Estonian Agricultural Academy	Tartu
State Institute of Art	Tartu
Tallin State Conservatory	Tallin
Tallin Pedagogical Institute	Tallin

Tartu State University, founded in 1632 by Gustavus Adolphus of Sweden and the oldest university in the Baltic countries, is the largest of the

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six, reporting an enrollment of 4,349 in 1956/57; 2,662 students attended the Tallin Polytechnical Institute in that year, and 2,476 were registered at the Estonian Agricultural Academy.

All major research carried on in Estonia is under the auspices of the Estonskaya SSR Academy of Sciences, founded in 1946 and located in Tallin. The Academy comprises 4 major departments: Social Sciences, Biological and Agricultural Sciences, Medical Sciences, and Physics, Mathematics and Technical Sciences. Some of the principal institutes and museums affiliated with these departments are the Institutes of History, Language and Literature, Economics and Law, Experimental and Clinical Medicine, Agriculture, Stockbreeding and Veterinary Science, Geology, Industrial Problems; the Estonian Folk Museum, the Estonian Language Society, the Naturalists' Society, and the Tartu Astronomical Observatory. The Estonskaya SSR Academy of Sciences is responsible to the Academy of Sciences of the USSR.

While Soviet educational practices may have achieved quantitative successes in Estonia, they have failed to realize their primary goal: the creation of the Soviet man. Education has always been an important factor in Estonian life and historically the Estonian people have a high record of literacy. Subject to alien domination during so much of their history, the Estonians resisted assimilation by preserving their language and customs through a strong tradition of education in the home. As a result, Soviet indoctrination in the schools is counteracted in the home, where children may be taught anti-Soviet ideas. To rectify this shortcoming, the Soviets have set up in Estonia, as elsewhere in the USSR, a new type of school--the internat or boarding school. There are 3 such schools in Estonia at present, and it is reported that 3 more are to be built by 1965. By removing the child from the home, the boarding school is expected to attenuate the influence of parents' "bourgeois" ideas. In addition, it is hoped that the boarding schools will free more mothers to participate in productive political and economic activities.

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Soviet educational authorities expect that the boarding schools will become one of the basic forms of elementary and secondary education.

Soviet criticism of the educational system in Estonia, as in the USSR in general, is aimed at the inadequate Communist indoctrination of students as well as the failure of the schools to prepare students for "socially usefully work" and for "participation in the building of a Communist society." To correct these failures, Khrushchev recently called for the "strengthening of the ties between school and life" and outlined a plan geared toward increased technological training. Under this plan, the 7- and 11-year schools would be abolished and an 8-year course substituted. Upon completion of this proposed 8-year school, the student would either go to work directly or enter a *tekhnikum* or other specialized school for intensive vocational training, combined with actual work experience. The most promising students would then have the opportunity to continue in higher educational institutions.

In 1956, 62 newspapers were published in *Estoniskaya SSR*, of which 53 were in Estonian and 9 in Russian. The majority of these newspapers are of city or rayon distribution, although in 1955 there were 8 newspapers of republic circulation. The most widely distributed of these is undoubtedly the Rahva Haal, the organ of the Estonian Communist Party. In 1956, 437,000 newspapers were printed daily, one copy per 3.7 persons on the average. In addition to published newspapers, most plants and collective farms post single-sheet wall newspapers discussing affairs of the enterprise. Besides the newspapers, approximately 2 million copies of 32 periodicals dealing chiefly with scholarly and technical subjects, and 6 million copies of 1,023 books were published in Estonia in 1956; 80 per cent of these publications were in Estonian.

Library facilities in Estonia consist of public libraries under the Ministry of Culture, rayon and city libraries, school libraries, and technical and special libraries presumably connected with the *tekhnikums*

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and specialized secondary schools. Of the 1,666 public libraries, 1,121 are located in rural areas and 545 in cities and towns. As of 1 January 1957, libraries in Estonia possessed a combined total of 16 million books. The majority of the public libraries are small, containing between 1,000 and 6,000 books and servicing an average of 400 readers. The Ministry of Culture reported that 333,000 readers had used the libraries under its jurisdiction during 1956.

Other cultural institutions in Estonia include 776 clubs under the Ministry of Culture, 23 museums (historical, local lore, natural sciences, and art), 9 theaters, and 286 movie installations. Affiliated with the clubs are societies for music, drama, dance, agriculture, and art. The 9 theaters were reported to have given 3,230 performances attended by 921,000 spectators in 1956. Cultural facilities for children include a Pioneer palace, 13 Pioneer homes, a children's tourist station, and 3 natural science stations for young people. The Soviets undoubtedly make use of all cultural institutions and publications in Estonia as instruments of Party propaganda: films, plays, books, and socio-cultural activities in the club are presumably geared toward the Soviet indoctrination of the Estonian people.

IV. Socio-Economic Factors

A. Housing

Housing conditions in Estonia, although still a major government problem, are probably among the more adequate in the USSR. During the period of independence (1920-1940), Estonian dwellings conformed closely to Scandinavian and West European standards in terms of quality and per capita living space. In addition, a comparatively small population increment in the intervening years has minimized the pressure for new construction. However, extensive war damage, the rapid postwar shift in population to urban areas, and a slow rate of residential reconstruction have lowered housing conditions considerably. Although in-migrants from

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other areas of the Soviet Union undoubtedly find housing better than in their previous experience, native Estonians probably have experienced a considerable deterioration in their accommodations. The limited quantity and low quality of new construction and the poor maintenance and repair of existing structures contribute to the decline in the housing situation.

At the beginning of 1958, housing was reported to be one of the most difficult and topical problems of the Estonian government. Residential construction quotas under the Five-Year Plans have been consistently underfulfilled. Construction is hampered by serious delays in the production and delivery of building materials and in the completion of plumbing and electrical work. Inefficient building methods create abnormally high production costs per square foot of floor space, and the quality of construction is generally poor.

The housing shortage is most pronounced in the areas of the greatest population increase: the urban centers and the shale basin. During World War II, housing in the major cities was greatly damaged. It is reported that almost all housing in Narva and about 50 per cent of that in Tartu was destroyed. Reconstruction in these cities was still incomplete in 1956. Destruction in Tallin was extensive, but recovery has been more rapid. Soviet statistics for 1957 indicate a per capita floor space of 107.2 square feet in Tallin. Although this exceeds the Soviet goal of 96.8 square feet per person, there is considerable evidence that the Soviet figures do not apply strictly to living space, but include such items as hallways, closets, and other non-living areas.

In Kokhtla-Yarve, where separate housing developments were built by ministries formerly concerned with the shale industry, the shale miners have complained that their housing is far below the standard of that provided for shale processing workers. Urban preferential housing is reserved for Party and government officials, who have been mainly Russians and Russian-Estonians. For the mass of workers, which include

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most of the Estonians, housing continues to be overcrowded, dilapidated, and lacking in many conveniences.

In the rural sections, where war damage was negligible and where the population has decreased since 1940, housing is probably less critical. On the other hand, there has been little progress toward construction of the planned collective farm villages, and the rural population for the most part continues to live on the individual farmsteads which existed before the war. This situation entails considerable inconvenience for the agricultural workers who must frequently travel excessive distances to and from their places of work. In some instances, old houses have reportedly been lifted onto rollers and moved into the villages. Although the new villages are apparently intended to offer primarily individual living quarters rather than common households, frequently as many as 3 families occupy such new houses as have been built.

During the period of independence, lumber was a major export of Estonia and the forest areas were substantially depleted and the use of construction materials other than lumber was strongly urged on the population. The Soviets have continued to emphasize non-wood construction in the interests of conserving the forests. In the major urban areas, buildings in the city centers are generally multi-story and of brick or stone construction with tiled or sheet-metal roofs; older residential areas comprise primarily one-story structures of wooden construction. Many farm buildings are built of granite, but wood construction is probably more prevalent.

In post-war years, approximately 29 million square feet of housing space have been built in Estonia. Of the 24 million square feet built between 1946 and 1956, about 22 million square feet were provided by government enterprises, institutions, and local soviets, compared with 2 million square feet built by the population at its own expense or with the aid of government loans. Residential construction by individuals has become increasingly important, however. During the Fourth Five-Year Plan

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(1946-50), government construction accounted for 93 per cent of the total housing program; by 1956, its share had declined to 83 per cent.

The housing program envisaged for 1958-60 calls for an additional 3.2 million square feet of residential floor space to be built at state cost. To supplement state housing construction, the directorate of construction is encouraging the do-it-yourself method for home-building. Workers in a ceramics plant in Tallin, for instance, recently completed a 4-story multi-unit brick apartment building to be occupied by workers' families. In 1958, 1.4 million square feet of residential floor space were to have been completed by the state and an additional 730,000 square feet built by individuals with the help of state credit.

While the planned increment in residential construction, if realized, may alleviate the housing shortage in Estonia to some extent, housing conditions, especially in urban areas, will probably continue to be crowded for the next few years.

B. Food Supplies

The supplies of food in Estonia have generally declined since the years of independence when the country had a predominantly agricultural economy, and meat and dairy surpluses allowed major export without creating internal shortages. During the period between 1940 and 1956 there was an increase in the urban consumer population and a decrease in the rural producer population where there is a perennial labor shortage. At the same time, areas sown to all types of agricultural crops dropped 15.5 per cent and the herds of beef cattle and cows were reduced. Thus, the adverse circumstances of the war years, the occupations, and collectivization, coupled with the large quotas of agricultural products required for shipment to other areas of the Soviet Union, have undoubtedly lowered the food standards previously enjoyed by the Estonian population. Nevertheless, on the basis of Soviet statistics it seems that in comparison with other Soviet citizens, the inhabitants of the republic are better off than average in food consumption. It is most

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probable that the in-migrant settlers enjoy food of higher quantity and quality than was available to them in their places of origin.

Per capita spending in Estonia on food products in 1955 was 37.5 per cent higher than in the USSR as a whole. Whereas higher prices for some foods may be an element in expenditures, a certain balance would be achieved by lower prices in other locally more available items.

Estonia is a meat-producing and fishing region and the population apparently has a diet relatively high in protein. Bread and bakery products, flour and cereals, particularly oat grits, are reported to be the most readily available and inexpensive food items and constitute, as elsewhere in the Soviet Union, the major part of the diet. However, per capita expenditures for food indicate that Estonian consumption of meat and meat products is the highest in the USSR. Fish also appears to be more plentiful here than anywhere in the Soviet Union, except for the RSFSR. Tea and salt are in good supply with extensive year-end inventories. Alcohol is said to be among the most accessible items and comprises an inordinately high proportion of food expenditures.

Although the country is a potato and vegetable-growing area, consumption of these commodities appears to be relatively low. Reportedly, potatoes are shipped out in quantity, particularly to the Leningrad area, and lower-quality potatoes are frequently brought in. Production of potatoes has increased only slightly under the Soviets; production of vegetables has been greater. Potato and vegetable storage centers have been built in major cities and in some rural rayons. However, as recently as 1954 there were shortages in most major urban areas and in the settlements of the shale field. Vegetables and fresh fruit are said to be available for the most part only in fall, including carrots, rutabagas, cabbages, cucumbers, onions, and apples. Consumers try to store these for the winter if space is available. Citrus fruits must be imported and are quite rare. Other hard-to-obtain foods include butter, eggs, sugar, and rice. Butter is largely exported and even

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margarine to take its place is scarce and expensive. Since there are apparently no sugar-processing enterprises in the republic, sugar must be shipped in. Milk is reported to be available only for children or for workers in mining or chemical industries.

Slow development of food-processing industries limits the possibility of conserving agricultural surpluses for future consumption, and purchases of canned goods are a relatively low item of food expenditure. The over-all shortage of storage facilities contributes to considerable spoilage of perishable foods, particularly of fresh fish. Total food products in reserve at the end of 1955 would have sufficed for only 29 days of normal trade turnover. Of specific items, the largest inventories consisted of salt, tea, potatoes, and canned goods, particularly vegetables and fruit-berries. Supplies for one week or less were on hand for meat and meat products, milk, eggs, and sugar.

The food distribution system is reported to be faulty and inefficient. There are too few shops and selection is limited. In spite of the fact that public dining enterprises increased 49 per cent between 1940 and 1955, there are still too few to meet requirements and the food is monotonous. In both stores and public catering establishments the service is poor.

The outlook for improvement of the food supply in Estonskaya SSR is probably not very favorable as long as the Soviets emphasize heavy industry at the expense of agriculture and food-processing, as long as farm management and mechanization of agriculture continue to be inefficient, and until substantial betterment of wage structures and living standards of the collective farm workers is achieved.

C. Transportation and Telecommunications

1. General

The pattern of Estonia's major transport systems was set prior to World War I, when the country was under Russian sovereignty and served Russia primarily as a trade route to Scandinavia, Eastern

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Europe, and the West. The main rail lines were established connecting the interior of Russia through Leningrad and Pskov with the Estonian port city of Tallin. Estonian manufacturing, closely dependent on the importation of machinery and equipment and of raw materials for processing and reshipment, was built up primarily in the cities served by these main rail lines--Tallin, Tartu, and Narva. Tallin, the major port, continues to serve as one of the important transshipment points between the USSR and East Germany, Poland, Sweden, and Finland. The ports of Tallin, Paldiski, and Pyarnu together represent 9.6 per cent of total Soviet Baltic port capacity.

A shale gas pipeline traversing the republic E-W along the N coastal area supplies the major gas requirements of Tallin and Leningrad from the shale-processing enterprises of Kokhtla-Yarve. Highway traffic throughout the republic is chiefly of local significance, except for some interrepublic transport along the Tallin-Leningrad highway. Direct air routes connect Tallin with Moskva, Leningrad, and Riga. A radio broadcasting station and a new television center are located in Tallin. Telephone networks probably exist in the major cities.

All phases of rail, maritime, and air transport in Eston-skaya SSR are controlled and coordinated by regional agencies of the central government. Operation of the shale-gas pipeline is under the jurisdiction of the Estonian Council of National Economy. Construction and maintenance along the paved Tallin-Leningrad highway are probably directed by the USSR Chief Directorate for Highway Construction. Road and river traffic is directed by republic agencies in Tallin. Construction and operation of civilian telecommunications networks in Estonia are controlled through the Estonian Ministry of Communications. Safeguarding of the security of transport and telecommunications facilities is the responsibility of MVD internal security police.

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2. Rail

The Estonian Railroad System was incorporated about 1952, along with those of the other Baltic republics and Kaliningradskaya Oblast, into the Baltic Railroad System, directed from Riga. In 1956 the Baltic System was dissolved and re-formed into the respective republic systems. Subordinate to the USSR Ministry of Transportation, the Directorate, Estonian Railroad System, in Tallin directs all rail traffic and operates all facilities throughout the republic. The System extends from Tallin to Narva (130 rail miles E), to Pechory, Pskovskaya Oblast (173 rail miles SE), to Valga (170 rail miles SSE), and to Aynazhi, Latvinskaya SSR (about 93 rail miles S). The Directorate formerly operated through subordinate division headquarters in Tallin, Pyarnu, and Tartu; these divisions were liquidated in 1956.

Soviet statistics (1957) indicate the total length of Estonian rail trackage to be approximately 869 miles, of which 53 per cent (461 miles) are broad gauge and 47 per cent (408 miles) are narrow gauge lines. Broad gauge rail lines predominate in the eastern half of the republic and narrow gauge in the western half. The most significant rail line runs from Tallin via Narva to Leningrad, passing through the important shale basin. From this line at Tapa a track runs SE to Tartu, whence connections can be made SW through Valga to Riga and SE into Pskovskaya Oblast. From Tallin a line runs SW to Khaapsalu, branching off at Keyla to the naval base of Paldiski. This branch comprises the only double-track line in the republic. Starting at Tallin, narrow gauge lines serve Pyarnu and the western and central parts of the republic and cross the border into Latvia at Ikla and Myssakyula.

The greater part of freight shipments into and out of the republic is carried by rail. The largest items among rail shipments are shale (43.9 per cent of outgoing and 20.1 per cent of incoming freight), mineral building materials (19.4 per cent of outgoing and 18.4 per cent of incoming freight), and lumber (15.3 per cent of incoming freight).

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TABLE XXIV

RAIL SHIPMENTS: 1956
(in thousand metric tons)

<u>Item</u>	<u>Outgoing</u>	<u>Incoming</u>
Shale	3,589	1,569
Coal	11	427
Crude oil	411	558
Ferrous metals	157	211
Lumber	838	1,198
Grain	76	372
Mineral building materials	1,588	1,441
Peat	133	125
Mineral fertilizers	163	82
Meat and fat	5	10
Animal oil	11	6
Fish and fish products	36	10
Potatoes and vegetables	25	36
Agricultural machinery	--	14
Tractors	--	12
Sugar	--	28
Other	<u>1,124</u>	<u>1,689</u>
Total	8,167	7,812

Total outgoing rail shipments exceed total incoming freight by about 4.5 per cent.

3. Water

All interrepublic and coastal shipping along the Estonia North Baltic littoral and operation of port facilities are controlled and coordinated by the USSR Ministry of Maritime Fleet. The subordinate Estonian State Steamship Agency in Tallin organizes and conducts maritime shipping between Soviet ports and between Soviet and foreign ports. It also controls maritime ship repair plants in Estonia and possibly maritime shipbuilding enterprises. River traffic in the republic is controlled from Tallin by the River Fleet Directorate under the Republic Council of Ministers.

Tallin is one of the chief Baltic commercial ports, with an estimated 7.8 per cent of Soviet Baltic port capacity, and serves as

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an alternate port for Leningrad in winter when that city's harbor is frozen over. The port of Tallin is kept open during January and February with the help of icebreakers. The only other significant harbor facilities are at the secondary ports of Paldiski, a naval base, with 1.1 per cent and Pyarnu, the republic's major fishing base, with 0.7 per cent of Soviet Baltic port capacity. The minor ports of Narva, Khaapsalu, Kunda and Loksa probably serve primarily as fishing bases and loading points for Estonian oil shale, timber, and agricultural products for the republic economy. Maritime activity out of Estonia is virtually limited to coastal shipping between Leningrad and the other Baltic ports and trade with East Germany, Sweden, Poland, and Finland. A new canal, a little more than 4 miles long, was under construction in 1956 across the Syrve Peninsula (Sarema Island) at its narrowest point. This channel will considerably shorten shipping time for S-bound traffic between the Baltic Sea and the Gulf of Riga and will probably be used chiefly by the fishing fleet and military vessels.

Cargoes shipped into Tallin include sugar, foodstuffs, fertilizers, cement, and reparations equipment from East Germany, coal from Poland, and timber from Sweden and Finland. Outgoing shipments comprise phosphates, shale oil, timber, and agricultural products. Construction materials, timber, industrial goods, and foodstuffs are transported on regular routes between Leningrad, Tallin, Kaliningrad, and the islands off Estonia.

While the rivers are generally not navigable, some are suitable in their lower reaches for barge traffic, handling principally agricultural products. The longest and most important inland water route leads from Lake Vyrtsyarv via the Emayygi River, through Tartu, across Lake Peipus, and via the Narva River to the Gulf of Finland.

4. Highway

Construction and maintenance of the Tallin-Leningrad highway is probably controlled by the USSR Chief Directorate of Highway

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Construction in Moskva. All other maintenance and repair and vehicular traffic over the republic road network is directed by the Estonskaya SSR Ministry of Automotive Transport and Roads in Tallin. In the 1956 central government reorganization this agency was changed from a union republic to a republic ministry, with virtual autonomy in its area.

The road network in Estonia, reportedly totaling almost 11,000 miles, is utilized primarily for the hauling of agricultural products. The only paved highway in Estonia runs E-W across the republic from Tallin to Narva, between the coast and the Tallin-Leningrad rail line, crossing the latter in the vicinity of Rakvere. An improved road leads from Tallin S to Pyarnu, bending SE to the Latvian border; another runs from Tallin SE to Tartu, thence to Vyr. An improved road which serves the eastern area of the republic leads off the Tallin-Narva highway from the shale basin near Yykhvi to Tartu, continuing further S to the border at Valga and into Latviyskaya SSR. Another improved road serves the western coastal area from Tallin to Khaapsalu and Virtsu and branches off to Paldiski. A NE-SW route across the republic is provided by an unimproved road between Rakvere and Pyarnu, leading further S to the border. The road network on Sarema Island has probably been constructed for military purposes.

The main roads in the republic are reported to be in comparatively good condition and kept free of snow in winter. In the northern part of Estonia, near the coast, and on the islands, the roads are said to be passable at practically all times. Elsewhere, considerable damage occurs to the road networks during the spring thaws and following the rains of late summer and early fall, rendering them impassable. Northern Estonia and Central and Southeast Estonia are generally well-served by rural road networks, with the exception of the areas N of Lake Peipus in the NE and in Central Estonia NE of Lake Vyrtsyarv. In these areas there are virtually no rural roads. In Western Estonia large areas of the lowlands, particularly N and E of Pyarnu, are without a rural road network.

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In the summer of 1956 large-scale road repair work was planned to be carried on throughout the republic, affecting as much as 7,500 miles of roads.

5. Air

Tallin is connected by direct air routes to Moskva, Leningrad, and Riga. All civil air passenger and mail service to and from the republic is controlled by the Northern Directorate of Civil Air Fleet in Leningrad through the Estonian Detached Air Group, probably located in Tallin. This agency shares with Soviet Air Force authorities the responsibility for operating the joint civil-military airfields at Tartu (Class 1), Tallin (Tallinn/Lasnamae, Class 2; Tallinn/Ulemiste, Class 5), and Kingisepp (Kuressaare, Class 5). A new airport terminal in Tallin contains a hotel for transit passengers.

6. Pipeline

A pipeline paralleling the Tallin-Narva Railroad along the N coast carries shale gas from Kokhtla-Yarve to Tallin. Put into operation in 1953, it is the capital's major source of gas for industrial and domestic consumers. Operation of the pipeline is controlled by the Material-Technical Supply and Distribution Branch Directorate of the Estonian Council of National Economy. The Directorate also controls the transport of shale gas via the older pipeline from Kokhtla-Yarve to Leningrad, supplying a large part of the gas requirements of that city. A proposed pipeline from the shale-gas enterprise under construction in Akhtme will reportedly supply gas to Leningrad, Riga, and Estonian towns in the NW.

7. Telecommunications

Under the USSR Ministry of Communications, the Estonskaya SSR Ministry of Communications is responsible for construction, operation, and maintenance of all civil telecommunications in the republic.

Eight radio stations operate in Estonia, and a powerful television center was established in Tallin in 1955 with a tower of more

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than 650 feet. In January 1958 there were 145,672 radio sets registered in the republic and 11,000 television sets. The volume of sound broadcasts is reported as 17 hours daily. The television center is said to beam propaganda broadcasts to Finland in Finnish. There is little information on the extent of the telephone network in Estonia. Undoubtedly service is provided in the major cities and probably to rayon centers. An automatic exchange exists in Tallin. A television mast to reach a height of approximately 600 feet, under construction in Tartu, was presumably completed in 1957.

D. Utilities

Utilities systems in Estonia are probably adequate only in the major cities, although they may generally compare favorably with systems in other areas of the USSR which are not heavily industrialized. Under the Soviets the supply of power has increased considerably; however, the development of power has been on the basis of local requirements for industry and agriculture, and the needs of the population are considered only secondarily.

The commonly low-voltage transmission systems probably do not supply much surplus power for domestic purposes. A new high-tension transmission line from Narva to Tallin has probably increased the supply of electricity available to domestic consumers in those cities and possibly in urban areas of the shale basin. The inhabitants of the 4 cities connected to the Leningrad grid, Tallin, Narva, Yykhvi, and Kokhtla-Yarve, are probably relatively well-served by electric utilities. A large new thermal power plant under construction at Narva will increase the supply of power to these cities, as well as to the industrial centers of Tartu, Pyarnu, Vilyandi, and to other rayon centers, to the shale basin, and to agricultural enterprises in general.

Tartu is the center of a small power network. It is not known to what extent electricity is available to the population of this area. New high-tension power lines from Tartu to Vilyandi, Valga, and Vyru are

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probably increasing the supply of power to industry and domestic consumers in these cities. The Vilyandi line will eventually be extended to Pyarnu. These lines will also open up prospects for electrification of agriculture in the southern and western rural rayons. About 51.8 per cent (1957) of collective farms are reported to be electrified, probably for the most part in the N and NE rayons; all MTS/RTS and 91 per cent of state farms are electrified. However, the supply of electricity for farm dwellings is undoubtedly at a minimum.

Gas is available for domestic consumption probably only in Tallin, Kokhtla-Yarve, and recently Narva. The shale gas pipeline between them has made the use of household gas in Tallin both economic and increasingly extensive. In 1953, shortly after the pipeline was completed, 3,400 apartments in the city were already supplied with gas and increases have been reported. New housing in Kokhtla-Yarve is said to be served by gas. A gas system is reported in Tartu, possibly supplied by a local plant. It is not known whether any dwellings in the city are gas-served.

Peat is becoming increasingly important as a major fuel base of the domestic economy. However, the peat industry does not yet fully supply the growing requirements of the population for cheap high-calorie fuel. Shale oil is reserved primarily for industry. Shale itself is used as a fuel, but to what extent it is accessible to domestic consumers is not known. The use of firewood is discouraged in the interests of saving lumber for processing industries, construction, and export; however, it is sometimes used on a rationed basis, particularly in rural areas. In Tallin, peat comprised 44 per cent of the city fuel consumption in 1955, but quantities of shale, shale oil, and shale gas are also consumed.

Central heating may be provided to residential areas in Tallin in the vicinity of the thermal power plant. Soviet sources complain that this plant discharges into the Baltic Sea great quantities of hot water

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which, with proper handling, could be used to heat a considerable number of apartments and industrial buildings, representing a saving of 50,000 tons of fuel per year. The existence of central heating facilities elsewhere in the republic is not reported.

Intracity bus lines operate in Tartu and Narva; all areas of Tallin are served by buses, streetcars, or commuter rail lines. Inter-city bus service operates from Tallin to Leningrad, Riga and Vilyandi and from Tartu to Leningrad, Pyarnu, Narva, and Pechory (Pskovskaya Oblast). A new bus line was planned in 1956 between Tartu and Rakvere.

The large numbers of rivers and lakes in the republic constitute a more than adequate source of water supply. In some areas, such as Tartu, artesian wells provide the source. Major cities are probably served by water systems; known systems are those in Tallin, Narva, and Tartu. Sewage disposal facilities also exist in these 3 cities. The water main and sewage systems in Tallin were being reconstructed in 1955.

Information on the extent of the republic telephone network is not available. Tallin has an automatic telephone exchange; systems operate in Tartu and Narva. Probably telephone service, at least for official use, is provided in most urban centers and on state farms and larger collective farms.

E. Economic Characteristics

1. General

Estoniskaya SSR, the northernmost of the 3 Baltic republics, is bordered on the N by the Gulf of Finland, on the W by the Baltic Sea and the Gulf of Riga, on the S by Latvinskaya SSR, and on the E by the Leningradskaya and Pskovskaya Oblasts of the RSFSR. The republic includes more than 800 islands, comprising about 10 per cent of the total land area, and more than 1,500 lakes comprising about 5 per cent of total area. An extension of the Russian Plain, the territory of Estonia is not separated from the main mass by any physical barriers. The average

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elevation of the plain, which runs N-S, is approximately 165 feet. To the S, elevations rise to more than 1,500 feet; in the western part of the republic the land is low with none of the islands more than 100 feet above sea level. Limestone formations on the Gulf of Finland provide many bays and natural harbors. Pine-covered dunes extend along the western coast.

The climate is moderate and humid with mild winters and cool summers. Yearly precipitation averages 22 inches, increasing from NW to SE. Rainfall is heaviest in July and August on the mainland and during the early fall on the islands. Landform is typically glacial with an abundance of gravel and boulder fields, swampy depressions, and clayey or sandy soil. Forests of spruce, pine, birch, aspen, and alder cover about 20 per cent of the republic's area, mainly in the SW and NE.

Although Estonia has few raw materials, its natural resources are more extensive than those of the other 2 countries of the Baltic area. Oil shale deposits, extending for about 75 miles between Rakvere and Narva, form the basis for one of the republic's most important industries. The largest peat deposits in the Baltic area are also found in Estonia, peat bogs covering about 12 per cent of its land area. Phosphate deposits, only recently exploited for use as fertilizers, are located near Tallin. Blue clays, used in the production of cement, are found along the Gulf of Finland. Sand, limestone, and shale are also used in building materials. The republic's extensive mixed forests provide raw materials for the woodworking and paper industries; lumbering is an important industry, although seasonal in character.

Estonia's rivers are shallow and generally not navigable, but are important for barge traffic and constitute a significant hydroelectric potential, the Narva River being the major source of hydroelectric power in the republic. The only completely navigable inland water route, chiefly providing an outlet for agricultural products, extends from Lake Vyrtsyav via the Emaygi River through Tartu to Lake Peipus,

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and thence via the Narva River to the Gulf of Finland. The northern ports freeze during the winter but can be kept open with icebreakers. Coastal and lake fishing, increasingly important in the republic's economy, support a substantial fish-processing industry.

Agricultural activity, carried on in all areas of the republic, consists primarily of the raising of livestock and dairy cattle. The country has been, and may still be, a grain-deficit area.

Estonskaya SSR is divided into 3 major economic regions (see Table XXV; refer to Maps V-A, V-B, and V-C).

TABLE XXV

ECONOMIC REGIONS OF ESTONSKAYA SSR

<u>Northern Estonia</u>	<u>Central and SE Estonia</u>	<u>Western Estonia</u>
<u>Rayons:</u>	<u>Rayons:</u>	<u>Rayons:</u>
Areas A, B, C, and D	Abyaskiy	Area E
Keylaskiy	Antslaskiy	Khaapsaluskiy
Kharyuskiy	Area F	Khiumaskiy
Kiviyliskiy	Elvaskiy	Kilingi-Nymmeskiy
Koseskiy	Kallasteskiy	Kingiseppski
Raplaskiy	Mustveskiy	Likhulaskiy
Rakvereskiy	Otepyaskiy	Myaryamaskiy
Tapaskiy	Paydeskiy	Orissaareskiy
Yykhviskiy	Pyltsamaskiy	Pyarnu-Yagupiskiy
	Pylvaskiy	Vyandraskiy
	Ryapinaskiy	
	Suure-Yaniskiy	
	Tartuskiy	
	Tyrvaskiy	
	Tyuriskiy	
	Valgaskiy	
	Vastselinaskiy	
	Vilyandiskiy	
	Vyayke-Maryaskiy	
	Vyruskiy	
	Yygevaskiy	

Northern Estonia, economically the most important, contains the bulk of the republic's industries, including the majority of the large enterprises and power plants, and most of the natural resources (shale, phosphorites, clays, and limestone). Industry is concentrated in Tallin, the

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major industrial center, and in nearby urban areas in the NW, and in the shale basin in the NE. Major industries in the NW include metalworking and machine building, production of textiles, woodworking, production of paper and cellulose, and food processing. The NE section contains the important oil shale mining and processing area and the textile mills in Narva.

Central and SE Estonia is important for the cultivation of sugar beets, chiefly in Paydeskiy, Vyayke-Maryaskiy, Pyltsamaskiy, Yygevaskiy, Tartuskiy, and Elvaskiy Rayons. Flax is also raised. Tartu, with machine-building industries and the major leather shoe production of the republic, is the chief industrial center of this region.

Flax is an important product of Western Estonia and is raised in all areas except Khaapsaluskiy Rayon and the islands. Peat cutting and processing are also important in the Western region. Industry is centered at Pyarnu, the major fishing and fish-processing center of the republic.

Extensive cultivation of potatoes and vegetables is carried on throughout the entire Northern region, in the rural areas surrounding Tartu and Pyarnu, and in a narrow strip along the NE and W shores of Lake Peipus in Mustveskiy and Kallasteskiy Rayons. Whole milk production is also important in these areas; elsewhere in the republic milk is used chiefly in the production of butter. On the islands, fishing and the raising of livestock are the chief occupations, and fruit and some sugar beet cultivation is under way.

Soviet data for Estonia for 1956 indicate a slightly unfavorable trade balance. Incoming materials and products totaled 3.3 billion rubles; outgoing shipments, 3 billion rubles. Much of Estonia's industry is dependent upon raw materials which must be supplied either from other parts of the Soviet Union or from Soviet satellite countries. Sugar and foodstuffs are received from East Germany; raw wool from Poland and Czechoslovakia; coke and pig iron from the Donets Basin; iron,

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steel, and steel products from the RSFSR; and raw cotton from the Uzbekskaya SSR. Estonia ships petroleum storage tanks and pumps to Rumania; shale to the Latvinskaya SSR; electric motors to China; and agricultural products, cotton textiles, leather shoes, shale oil, radio sets, and phosphates to the RSFSR and other parts of the USSR.

2. Industry

The reorganization of industry and construction in the USSR in 1957 vastly increased the responsibility of the Estonian government for the control of the republic economy. Except for a few major enterprises contributing to national defense which remain under the direction of USSR central government agencies, the over-all coordination and supervision of industrial and construction activities now rests with the Estonskaya SSR Council of Ministers (see Table V). The Estonskaya SSR Council of the National Economy (Sovnarkhoz), directly attached to the Council of Ministers, is responsible for the direction of industrial and construction operations (see Table VI). Established 1 July 1957, it controls virtually all important industry and directs all large construction organizations, except those concerned with the construction of rail and port facilities.

The State Planning Commission (Gosplan) and the Scientific Technical Committee, advisory organs to the Estonskaya SSR Council of Ministers, respectively recommend over-all economic plans and provide information on new scientific knowledge and techniques, but have no direct control over industrial operations. The Technical and Economic Council attached to the Sovnarkhoz is a consultative body on organization and administrative procedures. In Estonia, the present chairman of the Sovnarkhoz is also a Deputy Chairman of the Council of Ministers, although this is not automatically the case in all areas of the USSR.

The Sovnarkhoz probably controls the entire republic production of metallurgical equipment and virtually all extraction of shale and production of shale oil, mineral fertilizers, cement, textiles, leather

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goods, and footwear. The All-Union industrial ministries retained in Moskva--those concerned with important defense production--possibly continue to control a few of the major Estonian enterprises concerned with production for the chemical, electric, radio-technical, shipbuilding, and aviation industries. The extraction and processing of uranium ores, particularly at the important Narva area, has undoubtedly remained under the direction of the All-Union Ministry of Medium Machine Building.

About 420 of the more than 700 industrial enterprises in the republic, representing 54 branches of industry, were reportedly transferred to the jurisdiction of the Sovnarkhoz in 1957. In 1958, 357 enterprises were reported to be subordinate to it, the reduction probably resulting from the merging of a number of the smaller enterprises. In 1957, the Council controlled 78.5 per cent of the republic's industrial output (0.8 per cent of USSR output under the regional Councils). The enterprises and construction organizations under the Council employ an estimated 145,000 persons in 1959, about 42.9 per cent of the workers and employees in the republic. Table XXVI indicates that the greatest number of workers and employees under the Sovnarkhoz in 1957 were subordinate to the Branch Directorate of Light Industry. The bulk of the 10,400 persons not accounted for in this table were probably engaged in the meat and dairy products industry, with only a small number, probably less than 1,000 working under the Power Economy Branch Directorate.

Small industries producing for local consumption are controlled by the executive committees of the cities, towns, and rural rayons, with over-all coordination and supervision by the Republic Ministry of Local Economy. It is not yet certain whether industrial combines, directly subordinate to the executive committees, will be the organs of economic management or whether departments of local economy will be established under the executive committees for this purpose.

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TABLE XXVI

INDUSTRY SUBORDINATE TO THE ESTONSKAYA SSR
COUNCIL OF NATIONAL ECONOMY: 1957

<u>Branch Directorate</u>	<u>No. of Enterprises</u>	<u>Volume of Production (mil. rubles)</u>	<u>No. of Workers and Employees</u>	<u>Per Cent Total ESSR Pro- duction</u>
Shale and Chemical Industry	n.a.	920	21,500	11.5
Power ^{a/}	n.a.	n.a.	n.a.	n.a.
Machine Building	35	780	18,500	9.7
Building Materials Industry	31	175	8,000	2.2
Construction	n.a.	400	15,000	5.0
Timber, Wood-pro- cessing, and Paper Industry	43 ^{b/}	560	14,000	7.0
Light Industry	37	1,550	31,000	19.3
Food Products Industry	n.a.	720	9,000	9.0
Meat and Dairy Products Industry	150	800	n.a.	10.0
Fish Industry		385	7,600	4.8
Processing plants	23			
Collective fisheries	(83) ^{c/}			
Fish receiving stations	(100) ^{c/}			
Material-Technical Supply and Distribution	(100) ^{c/}	n.a.	n.a.	n.a.
Totals	420 ^{d/}	6,290	135,000	78.5

^{a/} Comprises enterprises of the ESSR Electric Power Directorate,
formerly subordinate to Baltic Regional Power Directorate (Riga).

^{b/} Includes 29 enterprises of former All-Union subordination.

^{c/} Not included in Soviet estimate of total.

^{d/} Soviet estimate.

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In either case, economic planning, industrial operations, and distribution of production of local industry will be centered at the local executive committee level.

Major industries in Estonskaya SSR are metalworking and machine building, shipbuilding and repair, shale mining and processing, and the production of electrical (particularly electronic) equipment, paper, textiles, and mineral fertilizers. Of all the Soviet republics, Estonia has undergone the greatest industrial development since 1940. Gross industrial production in 1957 was 8.4 times greater than in 1940; the rate of growth for the 1940-1956 period was more than twice that of the USSR as a whole. Industrial expansion has been concentrated in those areas which serve the over-all Soviet economy, particularly the shale, electrical, metalworking, machine building, and shipbuilding industries. Although an attempt was made during the Fourth Five-Year Plan (1956-50) to increase the republic's self-sufficiency by increasing the production of consumer goods, building materials, chemical fertilizers, and small farm implements, most of these items are still in short supply. The major part of Estonia's natural resources and industrial production has been diverted to the USSR without an equivalent return of goods and services.

The machine building and metalworking industries, developed in Estonia by the Soviets, account for an increasing portion of the republic's industrial output. The instrument making, precision mechanics, and electrical machine building industries have grown greatly in Estonia in recent years. Because labor reserves are short in Estonia, the republic's industrial growth depends largely on the mechanization of the various branches of industry. Consequently, further development for the machine building and metalworking industries is foreseen by the Seven Year Plan: Estonian plants are to produce specialized equipment to mechanize the shale extraction and processing operations and textile manufacturing procedures. Soviet sources report that 8 new instrument

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TABLE XXVII

STRUCTURE OF GROSS PRODUCTION BY
BRANCH OF INDUSTRY 1950, 1955^{a/}
(In per cent of total)

<u>Industry</u>	<u>1950</u>	<u>1955</u>
Light industry ^{b/}	20.0	25.4
Food processing	25.9	19.6
Machine building and metalworking	14.6	14.8
Fuel industry	10.0	9.6
Lumbering and woodworking	11.8	9.1
Electric power industry	2.8	3.7
Chemical industry	2.1	3.3
Building materials	3.1	3.3
Paper	3.4	3.2
Rubber and asbestos	0.8	1.4
Glass and china	1.3	1.0
Other	4.2	5.6

^{a/} From data on gross production in terms of whole-sale prices, 1 January 1952.

^{b/} Includes textile, sewing, and footwear industries.

manufacturing plants, now under construction in Estonia, will produce computers, X-ray installations, and transistors.

In terms of contribution to the national economy, the second most important industry in Estonia, after machine building and metalworking, is the extraction and processing of shale. The extensive oil shale deposits, centered in Yykhviskiy and Kiviyliski Rayons in the NE of the republic, are the most significant in the USSR. Major plants for processing shale oil into synthetic liquid fuels are located at Kiviyl, Kokhtla-Yarve, and Akhtme. Together, these plants account for 48.5 per cent of total USSR capacity for the production of synthetic liquid fuels (see Table XXIX, page 120). Aside from their major importance as a fuel base for northwestern USSR, the shale deposits contribute to a number of side industries. Shale ash residue can be converted into cement and is more widely used in the production of reinforced concrete. Methods have been

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evolved to produce washing powders, lubrication oils, and plastics from shale oil. Under long term plans for the development of the Estonian economy, a new shale combine to be constructed will specialize in the processing of shale waste to produce ethyl, naphthalene, butyl, and benzol.

Estonia occupies fourth place among the union republics in the production of cotton textiles and third place in the production of coarse cotton cloth. Cotton textile production in Estonia, 73.7 million meters in 1955, increased to 99.9 million meters in 1957. Cement production in the republic, while still below the output in 1913, has recovered considerably under the Soviets from a setback during the period of independence. The relatively new mineral fertilizer industry in Estonia increased production 7 times between 1950 and 1957, when it turned out 332,000 metric tons. Facilities of this industry are to be expanded under the Seven-Year Plan. The lumbering and woodworking industries provided major export items during the period of independence, with the resulting depletion of Estonian forests. Consequently, the use of lumber in construction and as firewood is discouraged today, and forest resources are exploited almost exclusively for manufacturing purposes. Woodworking industries are located at Tallin, Pyarnu, Rakvere, and Yarovakandi; paper and woodworking enterprises at Tartu and Ryapina; cellulose and paper enterprises at Tallin, Kokhila, and Kekhra.

Industry is concentrated in 5 cities of republic subordination: Tallin, Pyarnu, Tartu, Narva, and Kokhtla-Yarve. All are rail served; Tallin, Pyarnu, and Narva are also maritime ports and Tartu is a river port. They accounted for the following approximate percentages of total 1955 industrial output in Estonia:

	<u>Per Cent</u>
Tallin	44.7
Narva	6.1
Tartu	6.0
Kokhtla-Yarve	5.7
Pyarnu	<u>4.0</u>
Total	66.5

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Tallin, the most important industrial center in Estonia, accounted for 44.7 per cent of the republic's gross industrial production in 1955. The Estonian machine building, metalworking and electrical industries are located primarily in Tallin. Tallin Machine Manufacturing Plant, "A. S. Ilmarine" (Target 0153-0050) produces oil drilling equipment (one per cent of USSR capacity), probably for shale extraction; machinery and equipment for the shale-chemical and peat industries; and small agricultural implements and hand tools. The plant may also produce parts for locomotives and streetcars. Tallin Machinery Plant, "Kroll" (Target 0153-0002) produces agricultural machinery and equipment (one per cent of USSR capacity) and oil drilling equipment for the gas-processing and shale-processing industries (1.9 per cent of USSR capacity). A significant producer of electrical equipment and wire is Tallin Electrical Equipment Plant, "Kalinin/Volta" (Target 0153-0186), which manufactures the bulk, if not all, of Estonia's output of electric motors, representing 2.2 per cent of total USSR output of this item in 1955.

Three ship repair yards located in Tallin provide 7.4 per cent of the USSR's total ship repair facilities. Tallin Shipyard, "Kopli" (Target 0153-0417), one of the largest in the Soviet Union, accounts for an estimated 3 per cent of USSR capacity for ship repair and is capable of repairing ships up to destroyer size. The ship repair plant at the naval base, Tallin Naval Base and Shipyard, "Morskoy Zavod" (Target 0153-0416) also accounts for an estimated 3 per cent of USSR ship repair capacity. Tallin Ship Repair Yard, "Sudoremont" (Target 0153-0418) provides another 1.4 per cent, with repair facilities for small naval and commercial craft. Tallin contains the only repair plant in Estonskaya SSR for railroad rolling stock, Tallin Locomotive and Railroad Car Repair Plant, "Kalinin" (Target 0153-0516). It is not known whether the former Dvigatel Railroad Car Plant is still producing freight cars.

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Radios, loudspeakers, and public address systems are manufactured in Tallin by Tallin Radio Plant, "Punane RET" (Target 0153-0453), which provides 1.1 per cent of USSR capacity for radio and TV equipment. Other goods produced by industrial enterprises in Tallin are textiles, plywood, furniture, high-pressure boilers, cellulose, matches, rubber footwear, reinforced concrete products and processed foods.

The only other cities with diversified industry in Estonia are Tartu, Narva, and Pyarnu. Tartu, contributing about 6 per cent of Estonia's gross industrial production, is a center of the metalworking, food, light, lumber, and building materials industries. Tartu Telephone Plant (Target 0153-0455) produces complete telephone sets, largely for export, and probably manufactures measuring instruments. Household and industrial products are turned out by Tartu Aluminum Plant (Target 0153-0402). The city's leather footwear combine accounts for the bulk of the republic's significant production of this item. Also located here are a chemical plant, an agricultural machinery plant, and repair enterprises for railroad, river, and truck transportation. Tartu is the center of a timber-producing region, which supplies lumber mills and furniture factories in the city, and is the chief marketing center for agricultural products of the surrounding area.

Narva is an important center of the textile industry. The Krengholm Mill, the major industrial enterprise in Estonia prior to the period of independence, has been restored under the Soviets and is one of the largest cotton mills in the USSR (Narva Cotton Textile Combine Krengholm--Target 0153-0537). Contributing about 6 per cent of Estonian gross industrial production, Narva is the center of a lumbering region and a peat, shale, and uranium ore mining area. Here are located Narva Uranium Ore Mine (Target 0153-0479) and Narva Uranium Ore Concentration Plant (Target 0153-0477). Lumber mills and cast-iron, furniture, and brick factories are also found in Narva. A large plant for the manufacture of reinforced concrete products is under construction.

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Pyarnu is the major fishing and fish-processing center of the republic. The fish-processing industry is expanding, but the disproportion between the yearly growth of the fish catch and the growth of coastal fish-processing operations still results in much wastage. Pyarnu produces marine oil engines and mechanized equipment for the fish industry and has facilities for the repair of fishing vessels and equipment. Also located here are textile, lumber, and processed food industries.

A large cement plant is located at the port of Kunda; Tallin Cement Plant, "Kukermit" (Target 0153-0414) produces cement from shale ash. A new shale ash cement plant to be built at Kokhtla-Yarve will also produce slag cotton, slag cotton articles, and large wall blocks and parts. The fertilizer industry is located near Tallin at Maardu, the site of large phosphorite deposits. Production is probably limited to one plant, Tallin Superphosphate Plant, "Mardu" (Target 0153-0091), which also accounted for an estimated 0.2 per cent of USSR production of sulfuric acid in 1956.

3. Fuels and Power

Virtually all production of fuels and power, except what is produced for local consumption; is under 2 subdivisions of the Sovnarkhoz: (1) the Shale and Chemicals Industry Branch Directorate and (2) the Power Economy Branch Directorate (see Table VI, page 19).

a. Fuels. Next to metalworking and machine building, the most important industry in Estonia is oil shale mining and processing. The Sovnarkhoz Shale and Chemicals Industry Branch Directorate controls the exploitation of the important shale deposits in NE Estonia, the most significant in the Soviet Union. These deposits, accounting for almost 65 per cent of the shale mined in the USSR in 1955, constitute the chief local fuel and power base of the entire northwestern USSR. Probably most of the 21,500 workers and employees subordinate to the Directorate are concerned with the extraction of shale and processing of shale fuels. The shale and chemical enterprises under the Directorate account for 11.5 per cent (see Table XXVI, page 109) of republic total production (1957). The storage, transport, and distribution of fuels is directed by the

TABLE XXVIII

INDUSTRIAL PRODUCTION: 1955, 1957

Product	Unit	1955		1957	
		Production	Per Cent of Total USSR Production	Production	Per Cent of 1955 Production
Electric power	million kw-h.	940.9	0.6	1,110.0	118
Shale	million m. t.	7.0	64.9	8.3	119
Peat	1,000 m. t.	502.5	1.0	369.0	74
Peat briquettes	1,000 m. t.	61.0	na	61.0	100
Illuminating gas from coal shale	million cu. m.	387.9	28.2 ^{a/}	408.0	105
Mineral fertilizers	1,000 m. t.	143.1	1.5	332.0	232
Sulfuric acid	1,000 m.t.	9.7	0.1	na	na
Electric motors	1,000 units	143.1	0.9	na	na
Electric wire	1,000 m.	51.1	na	na	na
Grain drills	1,000 units	1.0	na	na	na
Lumber	1,000 cu. m.	746.0	1.0	1,103.0	148
Cellulose	1,000 m. t.	78.0	na	92.0	118
Paper	1,000 m. t.	51.4	2.8	85.0	167
Plywood	1,000 cu. m.	14.0	1.3	15.5	110
Cement	1,000 m. t.	111.3	0.5	na	na
Building brick	million units	196.2	0.9	204.0	104
Building lime	1,000 m. t.	104.7	1.7	127.0	121
Window glass	million sq. m.	0.9	0.9	1.0	109
Gypsum	m. t.	10.0	0.0	na	na
Roofing paper	million sq. m.	11.3	2.2	17.0	155
Roofing tile	million units	4.3	0.3	2.8	65
Excavators	units	na	na	301.0	na
Taxi meters	1,000 units	na	na	11.9	na
Heating boilers	1,000 units	na	na	6.4	na
Silicate products	1,000 cu. m.	na	na	7.2	na

^{a/} Per cent of USSR capacity for production of illuminating gas from coal and shale.

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TABLE XXVIII (Continued)

Product	Unit	1955		1957	
		Production	Per Cent of Total USSR Production	Production	Per Cent Of 1955 Production
Cotton cloth	million m.	73.7	1.2	99.9	136
Cotton thread	1,000 m. t.	21.2	2.0	na	na
Linen cloth	million m.	5.1	1.7	6.0	120
Wool cloth	million m.	2.5	1.0	2.9	111
Silk cloth	million m.	2.6	0.5	2.9	112
Washed wool	m. t.	154.0	0.1	na	na
Rayon	million m.	2.6	na	na	na
Leather footwear	million pair	2.2	0.8	2.3	105
Rubber footwear	million pair	1.1	0.8	1.7	154
Hosiery	million pair	6.1	0.8	7.7	126
Knitted underwear	millions	4.0	1.2	4.5	113
Knitted outerwear	1,000	864.0	0.9	864.0	115
Radio receivers	1,000 units	19.6	0.5 ^{b/}	12.2	62
Pianos	units	na	na	127.0	na
Skis	1,000 pairs	na	na	301.0	na
Metal beds	1,000	49.6	na	na	na
Wire nails	1,000 m. t.	4.9	na	na	na
Matches	1,000 boxes	307.1	na	440.0	143
Furniture	million rubles	106.3	na	122.0	115
Meat ^{c/}	1,000 m. t.	17.2	0.7	25.6	149
Fish and cetacea catch	1,000 m. t.	54.9	2.0	57.1	104
Butter ^{c/}	million m. t.	9.4	2.0	na	na
Canned goods	million standard cans	34.7	1.1	44.0	127
Margarine	1,000 m. t.	4.9	na	5.2	106
Cheese	1,000 m. t.	1.8	na	2.3	128

b/ Per cent of USSR capacity for production of radio and television receivers.

c/ Amount entering the state and cooperative trade network and collective farm markets.

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TABLE XXVIII (Continued)

Product	Unit	1955		1957	
		Production	Per Cent of Total USSR Production	Production	Per Cent Of 1955 Production
Bread and bakery products	1,000 m. t.	195.1	na	na	na
Macaroni	1,000 m. t.	6.6	na	6.5	98
Sausage products	1,000 m. t.	na	na	11.0	na
Confectionery	1,000 m. t.	12.7	0.9	14.3	113
Wine	1,000 gallons	367.2	0.3	na	na
Beer	1,000 gallons	610.0	na	na	na
Cigarettes	millions	4.2	na	4.3	1102
Household soap	1,000 m. t.	5.4	na	6.6	122

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Supply and Distribution Branch Directorate of the Council. Its control extends to the operation of the shale gas pipelines from Kokhtla-Yarve to Tallin and Leningrad.

The oil shale basin, located for the most part in Yykhviskiy and Kiviyliskiy Rayons, is reported to cover 115 square miles, with total oil shale reserves of 6 billion tons. Yykhvi is the mining center of the shale basin; important mines are also located at Kokhtla-Yarve, Kiviyl'i, Sillamyae, Kokhtla, Kukruse, Viyvikonna, Sompa, and Akhtme. Work has reportedly begun on 3 mechanized quarries with an annual capacity of over 10 million tons at the open-face shale mine at Viyvikonna.

Estonian shale is suitable as solid fuel and for refining into fuel oil, lubricating oil and high and low test gasoline. Automobile gas has also recently been obtained from shale resins. Shale oil is especially adaptable for use in submarines; thus, the shale deposits have considerable significance in their proximity to Leningrad and the Baltic ports.

The 3 major shale fuel processing plants, at Kiviyl'i, Kokhtla-Yarve, and Akhtme--a triangular complex lying athwart the Tallin-Leningrad rail line in NE Estonia--accounted as of 1 January 1958 for an estimated 48.5 per cent of total USSR capacity for production of synthetic liquid fuels and for one per cent of USSR capacity for storage of liquid fuels at refineries (see Table XXIX). Shale is processed in Kokhtla-Yarve for supplying Leningrad and Tallin with gas, which is supplied them by pipelines. Estonian production of fuel gas from shale in 1955 represented 28.2 per cent of total USSR production of this item from coal and shale. The planned new shale-gas enterprise at Akhtme, with an annual capacity of 400 million cu. m. of gas, is intended eventually to supply gas to Leningrad, Riga, and Estonian towns in the NW.

Non-refinery liquid fuels storage facilities are concentrated at the 3 major ports of Tallin, Paldiski, and Pyarnu and in Tartu (see Table XXX), and are probably utilized chiefly for naval operations.

TABLE XXIX

ESTIMATED PRODUCTION AND STORAGE CAPACITIES
FOR SYNTHETIC LIQUID FUELS AT REFINERIES: 1958

<u>Plant</u>	<u>Target Number</u>	<u>Annual Production Capacity (m. t.)</u>	<u>Per Cent of USSR Total</u>	<u>Storage Capa- city (m. t.)</u>	<u>Per Cent of USSR Total</u>
Kivioli Shale Distillation Plant (Located at Kivioli)	0153-0040	217,000	20.8	15,000	0.32
Kohtla-Jarve Shale Distillation Plant (Located at Kohtla-Jarve)	0153-0114	148,000	14.4	15,000	0.32
Johvi Shale Distillation Plant, "Ahtme" (Located at Akhtme)	0153-0056	<u>137,000</u>	<u>13.3</u>	<u>15,000</u>	<u>0.32</u>
Totals		502,000	48.5	45,000	1.0

TABLE XXX

ESTIMATED LIQUID FUELS STORAGE CAPACITIES,
NON-REFINERY: 1958

<u>Facility</u>	<u>Target Number</u>	<u>Storage Capacity (m. t.)</u>	<u>Per Cent of USSR Total</u>
Paldiski Petroleum Products Storage (Underground)	0153-0498	15,000	0.07
Pyarnu (Name of installation unknown)	0153-0830	2,000	0.01
Tallinn (Tallin) Petroleum Storage No. 1	0153-0499	5,800	0.03
Tallinn (Tallin) Petroleum Storage No. 2	0153-0531	13,500	0.06
Tallinn (Tallin) Petroleum Storage No. 3	0153-0552	3,500	0.02
Tallinn (Tallin) Petroleum Storage No. 4	0153-0553	8,100	0.04
Tallin Subtotal		30,900	0.15
Tartu (Name of installation unknown)	0153-0837	<u>3,000</u>	<u>0.015</u>
Totals		50,900	0.25

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The storage facilities at Tartu, if not exclusively supplying the 3 power plants of the city, which comprise the center of a small power network, may have some significance for the nearby airfield.

Up to the recent reorganization, the confused situation with regard to government control over the shale industry yielded unsatisfactory results. The utilization of existing mines and expansion of new ones was badly organized. Shortages of raw materials and equipment occurred and great losses resulted from non-productive waste and faulty management. There have been disparities in the provision of facilities, such as housing, to workers in the mines as opposed to workers in shale-processing enterprises. The new concentration of control in one agency on a more localized (republic) level, however, may lead to greater efficiency of operation and increased production.

b. Peat. Peat is the most widely used fuel in the republic economy, particularly for small industries and domestic consumers. Peat bogs, found throughout Estonia, are reported to comprise 13 per cent of the total land area of the republic. Areas containing the largest deposits (over 18 per cent of the republic total) are Administrative Area E (formerly Pyarnuskiy Rayon), Pyarnu-Yagupiski Rayon, and Administrative Area D, where Narva is located. Other large deposits (over 16 per cent of total deposits) are found in Khaapsaluskiy, Likhulaskiy, Paydeskiy, and Pyltsamaskiy Rayons. There were in 1955 only 20 peat extracting enterprises in the republic, including the most important ones at Tootsi, Lavassaare, and Ellamaa (a non-urban populated place at the southern tip of Keylaskiy Rayon). The chief factory for processing peat into briquettes is located at Tootsi and a new one has been constructed in Vyru. Despite pressure for increased exploitation of the republic peat deposits, production is far from satisfying the growing requirements of industry and domestic consumers for cheap, high-calorie fuel. Peat amounts to about 44 per cent of the fuel balance in the Tallin city economy (1956).

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The use of firewood as fuel is discouraged but sometimes occurs on a rationed basis, particularly in rural areas. The extraction and distribution of fuels for local consumption is handled by departments of the city and rayon executive committees.

c. Power. The Power Economy Branch Directorate of the Estonian National Council of Economy operates and administers all electric power plants of the Estonenergo (Estonian Electric Power) System, formerly under the Baltic Regional Electric Power Directorate in Riga, Latviyskaya SSR. The Estonian Branch Directorate controls the distribution of all power produced by these plants to industrial and domestic consumers and agricultural enterprises within Estonia. Production of power supplied to the Leningrad area from plants in Tallin, Narva, Yykhvi, and Kokhtla-Yarve, which are connected with the Lenenergo (Leningrad Electric Power) System is jointly controlled by the Estonian Power Economy Branch Directorate and the corresponding power directorate of the Leningrad Economic Region. Small individual power plants in Estonia, particularly in rural areas, are operated by the local enterprises which use them. Probably not more than 1,000 workers are directly engaged in the production of power in the Estonskaya SSR.

In 1955 electric power produced in the Estonskaya SSR totaled 940.9 million kw-h, or 0.6 per cent of the total USSR electric power balance. A total of 2.2 million kw-h was furnished to areas outside the republic, probably exclusively to Leningrad. To handle the republic's over-all electric power consumption of 949.7 million kw-h, therefore, 11.0 million kw-h had to be furnished from contiguous areas, probably through the Leningrad grid.

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TABLE XXXI

ELECTRIC POWER CONSUMPTION: 1955

<u>Branch</u>	<u>1955 Consumption (mil. kw-h)</u>	<u>Per Cent of Total</u>
Industry and Construction	604.9	63.7
Transportation	13.8	1.5
Other	190.1	20.0
Power plants	67.7	7.1
Network losses	<u>73.2</u>	<u>7.7</u>
Total	949.7	100.0

Estonia's electric power production increased 8.4 per cent between 1955 and 1956 to 1,020 million kw-h, but decreased in percentage of total USSR production from 0.6 in 1955 to 0.5 in 1956.

The principal electric power expansion in the Baltics has been planned for Estonia in conjunction with the development of the shale industry. The Soviets claim that in 1955 the output of electric power was 11 times greater than in 1940 and that the 1960 output will exceed the 1955 level of 940.9 million kw-h by 2.8 times. The waterfalls at Narva constitute about 50 per cent of the hydroelectric power potential of the republic. A new hydroelectric power plant at Narva (Narva Hydro-power Plant GES--Target 0153-0037) supplies Leningrad and Tallin and possibly the shale centers. It powers a high-tension transmission line to Tallin, apparently connecting that city with the Leningrad transmission system. A large thermal power plant, under construction about 2.5 miles W of Narva, will be a major power producer of the Baltic area. Planned for completion by 1960, it will be the largest power plant to operate on shale fuel, with an initial capacity of 300,000 kw. and an eventual capacity of 600,000 kw., producing annually over 3.5 billion kw-h, while consuming 5 million metric tons of shale annually. When in operation, the new plant is expected to satisfy fully the power needs of the shale

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basin, the cities of Tallin, Tartu, Narva, Pyarnu, and Vilyandi, and the rayon centers, as well as the agricultural enterprises of the republic. Much of its power will be transmitted to Leningrad and Leningradskaya Oblast. The Soviets claim that when this new plant is working to full capacity, Estonia will rank second after Sweden in per capita power generation with 5,000 per capita kw-h of electric power annually.

Future plans envisage the creation of a single power grid which will link up all the electric power stations of the republic. Some sections are reportedly already operating. Eventually, construction of high-voltage lines from Estonia to the other neighboring republics is planned. Tartu is the center of a small local power network probably supplying industry of the city and surrounding rural areas. Construction of new transmission lines from Tartu to Vilyandi, Valga, and Vyrus is reportedly completed. The Vilyandi line will be extended to Pyarnu. The generally low-voltage transmission systems in the rest of the republic probably do not supply much power outside the urban industrial centers. Small rural power plants provide some power for the larger collective farms in agricultural areas. A portion of these plants are hydroelectric or thermal, but the majority are probably Diesel or windmill-driven.

4. Agriculture

The principal agency in Estonia concerned with the direction of agricultural activity is the Estonskaya SSR Ministry of Agriculture. Directly subordinate to the USSR Ministry of Agriculture, its sphere of responsibility and authority was increased considerably when it absorbed the Estonskaya SSR Ministry of State Farms during the USSR governmental reorganization in 1957. The agricultural ministry supervises the operation of virtually all the republic's 100 state farms and 879 collective farms. Some specialized cattle and dairy state farms, however, may have been transferred to the jurisdiction of the Meat and Dairy Products Industry Branch Directorate of the Council of National Economy.

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Prior to the beginning of the machine tractor station (MTS) reorganization in May 1958, there were 66 MTS in Estonia serving the collective farms with agricultural equipment and machinery and performing planning and fiscal functions. Since then, individual collectives have purchased a considerable quantity of this equipment and some of the MTS have presumably been converted into repair technical stations (RTS). It was reported that by mid-1958, Estonian collective farms had purchased about 2,000 tractors from the MTS and that 60 per cent of the tractor work done on the collectives was handled by machinery owned by the farms themselves. The duties of the RTS will encompass such activities as machine repair and sale of agricultural machinery, fuel, spare parts, insecticides, and fertilizers to the collective farms. Such traditional MTS assignments as the carrying out of irrigation and meliorative work, road-and-reservoir construction, and meadow and pastureland improvements will devolve upon the RTS.

The procurement of grain is the function of the Grain Products Directorate attached to the Estonian Council of Ministers. The processing, packaging, and distribution of agricultural products is under the appropriate food Branch Directorates of the Sovnarkhoz. Lumbering and fishing operations in the republic are controlled respectively by the Timber, Wood-Processing, and Paper Industry Branch Directorate and the Fish Industry Branch Directorate of the Council.

Until occupation by the Soviets, Estonia had always been a predominantly agricultural country. Approximately two-thirds of the population during independence was rural. Since 1940, however, the adverse circumstances of the war years, the occupations and collectivization, coupled with the Soviet emphasis on industrialization, have adversely affected agriculture. The urban consumer population now outnumbered the rural producer population. At the same time, areas sown to agricultural crops have decreased and the number of livestock has been reduced. The fruit economy, which was destroyed by the cold winter of 1939-40, is still in need of restoration.

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The poor soils of the country require much fertilization. Under the Soviets, a mineral fertilizer industry based on the phosphorite deposits at Maardu has been established in Estonia. Shale ash is also used for liming the acid soils. The swampy character of much of the terrain makes extensive drainage necessary. The authorities have announced an ambitious plan calling for the draining of all marshes in the republic by 1965, to provide approximately 2.5 million acres of new land. Because of the infertile soil and the predominance of meadow and pasturelands, livestock-raising and dairy-farming have always been the basic features of the rural economy.

The total land area in Estonia is 11.2 million acres of which 5.1 million or 46 per cent is agricultural land. Land in use by agricultural enterprises and households as of 1 November 1956 totalled 6.9 million acres or about 62 per cent of total land area (see Table XXXII). In 1956, 2.2 million acres of land were cultivated, or 43.1 per cent of the total agricultural lands.

TABLE XXXII

AGRICULTURAL LAND USE: 1956

<u>Agricultural enterprise</u>	<u>Acres (thousands)</u>	<u>Per Cent of Total Republic Land Area</u>
Collective farms:	6,075	54.0
(Public use)	(5,920)	(53.0)
(Personal plots)	(155)	(1.0)
State economy:	844	8.0
(State farms)	(710)	(6.0)
(Other enterprises)	(134)	(2.0)
Individuals	23	0.2
Workers and Employees	(13)	(0.1)
Individual farmers	(10)	(0.1)
Total	6,932	62.2

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The number of collective and state farms decreased after the 1950 peak of 2,200 and 127, respectively, as smaller farms were merged to form larger ones. The average collective farm in Estonia comprises approximately 4,900 acres and the average state farm about 2,500 acres, reversing the situation in the USSR as a whole, where the average state farm is more than 3 times larger. Throughout the Baltic republics, collective and state farms are far below the USSR averages in size; the average Estonian state farm is the smallest among the 3 republics and only a fraction of the size of the average USSR state farm; collectives in Estonia are generally smaller than in Lithuania and larger than in Latvia.

Of the 100 state farms in Estonia, 80 per cent are reported to be livestock farms for meat and dairy produce. The remainder are concerned with stock-breeding, fruit and vegetable-growing, and sugar beet production. About half of the meat and milk state farms are located in the Central and Southeastern Region and over 25 per cent in the Northern Region.

Most of the Estonian collective farms are concerned with livestock raising for meat and dairy produce. Over 90 per cent consist of not more than 200 households, and few are wealthy; only about 0.5 per cent have annual incomes of one million rubles or more.

In general, productivity in animal breeding and dairy-farming is probably still below prewar levels. Although in the USSR as a whole, livestock herds have increased since 1940, the total number of livestock in Estonia, as in the other Baltic republics, has decreased. The herds were greatly reduced during the years of intensive collectivization (1948-50), as peasants slaughtered their animals for food rather than lose them to the collective farms. The number of cattle, including dairy cows, has decreased by about one-third since the first Soviet occupation. However, Estonian collective and state farms rank high among the union republics for average milk yields which are somewhat higher

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TABLE XXXIII
DISTRIBUTION OF LIVESTOCK
(Selected Years)

Type	Number of head (in thousands)			
	1941	1945	1953	1958
All cattle	528.4	401.4	506.0	439.9
(dairy cows)	(401.8)	(226.5)	(271.2)	(278.8)
Hogs	319.2	196.2	300.1	408.8
Sheep	322.0	na	241.0	236.6

than those of prewar years. Most of the milk is utilized for butter production. Sheep, less numerous than before the war, are raised for wool. Goats, numbering 19,000 in 1956, are raised for milk, butter and probably cheese production. The chief gain in livestock breeding has been in the number of hogs raised, which has increased by about 28 per cent since 1941. Some poultry and horses are also raised. According to a livestock census of 1 January 1958, more than half of the total livestock in the republic (52 per cent) are owned by individuals, chiefly the collective farmers; 13 per cent of the livestock, especially hogs, are to be found on state farms, and 35 per cent on collectives.

Increase in the livestock herds has been hampered by fodder shortages and lack of adequate quarters for the animals. Efforts to expand the fodder supply appear, in general, not to have been too successful. The grass-field system of cultivation instituted under the Soviets failed to give the expected high yields. The production of corn for fodder, introduced in 1955, has suffered from a lack of knowledge of proper techniques. A major source of fodder is the sugar beet production centered in the Central and Southeastern Region. Forage grasses, oats, and barley are also grown for animal feed.

While throughout the USSR, sown areas have increased about 29 per cent since 1940, total areas sown to all types of agricultural

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TABLE XXXIV
AREAS SOWN TO ALL AGRICULTURAL
CROPS FOR SELECTED YEARS

<u>Year</u>	<u>Sown Area</u> <u>(in thousands of acres)</u>
1913 (according to pre- sent boundaries)	1,722
1940	2,268
1950	2,009
1954	2,110
1955	1,932
1956	1,917

crops in Estonskaya SSR have decreased by about 15 per cent. Contrary to the slight increases in sown areas of the other Baltic republics between 1955 and 1956, Estonia registered a small decrease.

Under the Soviets, acreage for certain categories of crops has shown an increase since 1940: among these are potatoes, 17 per cent, and vegetables, almost 300 per cent. Winter and spring wheat are at pre-war levels. In 1955, a net decrease of 25.6 per cent had occurred in acreage sown to other crops, including rye, barley, oats, mixed grain, fodder beets, flax, and field hay. A new fodder crop has been introduced--maize, silo maize, and green feed maize. One half of all republic area sown to vegetable crops is in Northern Estonia. The grain crop is raised primarily in Northern and Western Estonia. Many Estonian workers and employees cultivate fruit and vegetables in their spare time, and in Tallin more than 2,470 acres are devoted to private plots. Large plots of land are being allocated near Tallin and in the shale-producing area for orchards and vegetable gardens. Amateur fruit growers are provided with free seeding stock and free transportation of fertilizer.

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The pace of electrification of agriculture is slow: of the total amount of power consumed in the republic, only about 3.5 per cent goes to agriculture. By the end of 1957, all MTS/RTS, 91 per cent of the state farms, and 51.8 per cent of the collective farms had reportedly been electrified, but the amount of power supplied was small and was used chiefly for lighting. In the postwar years, about 100 rural power plants supplying power to collective farms were said to have been put into operation, more than 30 of them hydroelectric or thermal. Most rural plants are probably Diesel or windmill driven. It is probable that rural electrification is most advanced in the northern and northeastern rayons. New high-tension power lines from Tartu to Vilyandi (eventually to Pyarnu), Valga, and Vyruskiy will open up prospects for electrification of agriculture in the southern and western rural rayons. Plans are under way for installing telemechanization in 6 rayon transformer substations (e.g., Tartuskiy, Vyruskiy, Valgaskiy, and Otepyaskiy Rayons), the first in the rural electrification system of Estonia to be operated by control panel. With the completion of the new thermal power plant at Narva, the requirements of agriculture for electric power are expected to be met fully.

In mechanization of agriculture, Estonia, Latvia, and Lithuania were far behind the Soviet Union up to World War II. Considerable progress toward greater mechanization in the 3 republics had been made by 1950. By 1957, mechanization of collective farms in Estonia was such that 70 per cent of the field work on the farms was reportedly done with the aid of machines. In 1956, there were 8,100 tractors in Estonia, each servicing an average of 237 acres, a more favorable ratio than the USSR average of one tractor per 305 acres.

In general, collectivization and mechanization of agriculture in Estonia have probably failed to achieve even the prewar level of production. The Soviet regime met the greatest resistance among the rural population, and the most productive and successful farmers were eliminated through deportations. The perennial shortage of labor on the collective

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farms continues to be a major problem. It has been made almost impossible for collective farm workers to transfer to other occupations. However, the young men who are demobilized from the armed forces may choose their first employment and seldom elect to return to the farm. Thus, the labor force on the collective farms comprises for the most part women, older men, and adolescents.

Very little progress has been made toward the construction of the collective farm villages, probably reflecting both the inefficient organization of rural construction and the reluctance of the farm population to be moved. Much of the farming probably continues to be done on the scattered farmsteads which have simply been assigned to a collective. The collective farm worker not only experiences a substantially lower living standard than his urban counterparts, but in many cases must travel excessive distances to and from his home to his work area.

Various attempts have been made to improve agricultural production. In 1953 the government reduced the compulsory delivery quotas and increased delivery prices such as those for meat, milk, and eggs. Greater emphasis was placed on the private plots of collective farm workers. In the spring of 1957, compulsory quotas hitherto levied on produce from private plots were abolished (quotas for the collectives are also now abolished). At the same time, however, the work-day norms of the collective farm workers were increased and the prices for privately-grown produce were reduced.

All aspects of the rural economy are supervised by the Estonian Communist Party apparatus. The Rayon Party Committees coordinate the activities of the various government agencies concerned with agriculture and maintain control over the appointment of collective farm and MTS chairmen. In recent years the Party has strengthened its control over agricultural production on lower levels. After the 6th Party Congress in 1951, the directing cadres of collective farms were reinforced with Party members, candidates, Komsomols, and others with higher and specialized

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agricultural education. In 1951 only 15.1 per cent of all republic Communists were reported to be working on collective and state farms and at machine tractor stations and mechanized melioration stations. Between 1954 and 1956, 500 Communists from city and republic organizations were sent to strengthen the rural rayon Party Committees. Six hundred were sent from cities and from rayon organizations and institutions to serve on the machine tractor stations and on the collective and state farms. Pressures for more active participation of Party members continue, and it is likely that Party activity at the production level is increasing generally throughout the rural rayons, as it certainly is at the control level.

V. Urban areas

(See Table X, for urban area population ranges.)

Estoniskaya SSR contains the following urban areas:

Tallin^{1/}
(Tallinn)

59-26 N; 24-45 E.

Population: 275,000 (1959 est.)

Administrative: City of republic subordination. Capital, Estoniskaya SSR; administrative center, Kharyuskiy Rayon and Area A; controls 2 urban settlements (Ioksa and Maardu) and 14 selsoviets. Contains 3 urban rayons: Kalininskiy, Morskoy, Tsentralnyy. Contains major party, military, government, internal security, civil defense, and economic agencies of republic.

Military: Principal naval base of northern part of Baltic Military District; provides complete logistic and operational support to large number of submarines and to major segment of Baltic fleet; accommodates destroyers, submarines, gunboats, torpedo boats, and patrol craft. Hq, North Baltic Squadron of Baltic Fleet; Hq, Tallin Naval Defensive District; munitions dump, including mine and torpedo depot, POL storage center (est. 37,000 m.t. capacity). Fleet training center: naval infantry school; officers' specialist school; EM training detachment. Hq, Tenth Guards Army; Hq, 29th Guards Rifle Div; Hq, U/I AAA Div (PVO); Hq, U/I AAA Regt 29th Guards; Hq, U/I AAA Regt (PVO); Hq, 392nd MVD Regt. Radar sites, antiaircraft artillery installations, guided missile base. Air Command Control Center: primary significance for air defense and air attack capabilities.

^{1/} Place names as transliterated from the Soviet ATD. Names in parentheses as given in BE.

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Tallin
(Contd.)

Airfields: One class 2 primary defense base (military/civil); one Class 2 base under construction for possible use as fighter base (military); one Class 5 fighter recovery base (military/civil); one Class 6 seaplane station; one Class 7 seaplane station.

Transportation: One of chief Baltic commercial ports (est. 7.8 per cent of Soviet Baltic port capacity); transshipment point; Estonian State Steamship Agency. Important railroad junction: Directorate, Estonian Railroad System; 4 railroad yards and shops; repair center of railroad system; railroad engine depot, car repair shop, electric engine house, steam engine house.

Economic: Industrial center of republic; accounts for 44.7 per cent of industrial production in republic. Most important industries: shipbuilding and repair (est. 7.4 per cent of USSR capacity for ship repair; one shipyard is one of largest in USSR); machine construction; production of electrical and railroad equipment; metalworking. Produces equipment for oil-shale mining (est. 2.9 per cent of USSR capacity for oil-drilling equipment) and peat processing industries; radios and radio equipment (est. 1.1 per cent of USSR capacity for radio and television equipment); agricultural machinery (est. one per cent of USSR capacity); electric motors, railroad equipment and parts (possibly freight cars), machine tools and high-pressure boilers, measuring instruments, lacquer, textiles (wool, silk, and cotton fabrics), knitted goods, footwear, cellulose and paper, furniture and plywood (one of largest plants in N Europe), matches, veneer, hardware, plumbing equipment, rubber products, soap, alcohol, wire and nails, crystal and glass goods, electric irons, lamps, building materials from shale ash (for concrete and reinforced concrete parts), silicate and red bricks, ceramics, roofing, insulating, and sanitary-technical goods and materials, concert pianos, and tobacco. Meat and canned goods combine; grain combine; fish combine; dairy combine; bakeries; sawmill. One thermal power plant (est. capacity: 53,000 kw.) part of Leningrad grid; terminus of shale gas pipeline from Kokhtla-Yarve. Liquid fuels storage, non-refinery (at least 4 installations with est. 37,000 m.t. capacity; mostly used for shipping, chiefly naval).

Education: Estonskaya SSR Academy of Sciences; Tallin Polytechnical Institute; pedagogical institute; agricultural institute; Tallin State conservatory; medical, music, art, and drama schools, tehnikums for light industry, fishing industry, mining, construction, trade, finance, navigation.

Refer to Target Information Sheet, (0153-9999) 19 Aug 1953 and to Target Complex Study, A-115, for more detailed analysis.

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Tartu

58-23 N; 26-44 E.

Population: 73,000 (1959 est.)Administrative: City of republic subordination.

Administrative center, Tartuskiy Rayon and Area F; controls 10 selsoviets.

Military: Air Command Control Center: primary significance for air attack capability. Hq, U/I Long Range Air Corps; Hq, U/I Jet Med Bomber Division. Radar site.Airfields: One Class 1 primary bomber base (military/civil; only one of class and category in Baltic Military District).Transportation: Railroad junction and river port. Railroad yards and shops.Economic: Center of diversified industry: metalworking, food, light, lumber, building materials. Telephone and measuring instrument plant; agricultural machinery plant; aluminum plant producing household and industrial products; chemical plant. Repair enterprises for railroad, river, and truck transportation. Leather footwear combine; meat, milk, fish, and milling-bakery combines; brewery; yeast, flax combines; knitwear factories; sawmills. Produces glass, bicycles, combs, and sets for refrigerator units. Center of small power network: 2 thermal power plants, one mobile power plant (total est. installed capacity: 12,000 kw). Liquid fuel storage, non-refinery (est. 3,000 m.t. capacity). Center of timber producing, agricultural, and livestock-raising area. Chief marketing center of area.Education: Largest scientific and cultural center of republic: Tartu State University; Branch of Estonskaya SSR Academy of Sciences; Tartu Astronomical Observatory; Estonian Agricultural Academy; 2 farm mechanization schools; construction and railroad transport tekhnikum; pedagogical, medical, music and art schools.

Refer to Target Information Sheet (0153-9989), August 1955, for more detailed city analysis.

Pyarnu
(Parnu)

58-24 N; 24-30 E.

Population: 38,000 (1959 est.)Administrative: City of republic subordination.

Administrative center, Area E (formerly Pyarnuskiy Rayon); controls one town of rayon subordination (Sindi), one urban settlement (Lavassaare), and 9 selsoviets.

Military: Hq, U/I Jet Light Bomber Division.

Radar site, antiaircraft artillery installation, guided missile base.

Airfields: One Class 2 alternate bomber base (military); one Class 5 military base (probably training); one Class 7 seaplane station.Transportation: Secondary port (est. 0.7 per cent Soviet Baltic port capacity); river port; railroad junction.Economic: Major fishing center of republic.

Center of woolen industry; lumber and metalworking industries. Fish combine, largest fish-canning plant in republic; large fish refrigeration plant;

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Pyarnu
(Contd.)

repair of fishing vessels and fish industry equipment. Flax-spinning; linen-spinning and weaving. Sawmills; furniture and match factories; paper mills; brickworks. Produces mechanized equipment for fish industry, marine oil engines, equipment for dairy industry, leather, skis. Meat and grain combines; dairies; brewery. Liquid fuels storage, non-refinery (est. 2,000 m.t. capacity).

Education: Peat industry tekhnikum.

Health: Major health resort of republic.

Kokhtla-Yarve
(Kohtla-Jarve)

59-24 N; 27-15 E.

Population: 23,000 (1959 est.)

Administrative: City of republic subordination.

Located in Yykhviskiy Rayon. Administrative center, Area B; controls 2 urban settlements (Kokhtla and Kukruse).

Economic: Center of republic shale-chemical industry; shale-processing combine; shale mine; shale distillation plant (est. 14.4 per cent of USSR capacity for synthetic liquid fuels--148,000 m.t.); originating source of shale-gas pipelines to Leningrad and Tallin. One regional thermal heat and power plant (est. installed capacity: 36,000 kw.) part of Leningrad grid; one thermal power plant (est. installed capacity: 4,000 kw). Liquid fuels storage at refinery (15,000 m.t. capacity).

Education: Oil-shale processing tekhnikum; medical and music schools.

Narva

59-23 N; 28-12 E.

Population: 23,000 (1959 est.)

Administrative: City of republic subordination.

Administrative center, Area D; controls one urban settlement (Narva-Yyesuu).

Military: Radar site.

Airfield: One Class 5 (military).

Transportation: End of Estonian Railroad System; end of October Railroad System; railroad yards and shops; turnaround point (for Gatchina). Minor port.

Economic: Important center for textile industry; one of largest cotton mills in Europe. Center of lumbering and peat area; uranium ore and oil-shale mining. Reported uranium ore concentration plant. Motor vehicle repair plant; shale-oil distillation plant; lumber, iron-casting, and brick factories; large reinforced concrete products plant under construction. One hydroelectric power station (est. installed capacity: 140,000 kw.), part of Leningrad grid, supplies Leningrad and Tallin; a major thermal power station of Baltic area under construction about 2.5 miles W of city, planned for completion by 1960 with capacity of 300,000 kw., will operate on shale fuel.

Education: Textile tekhnikum.

Refer to Target Information Sheet (0193-9994), August 1956, for more detailed city analysis.

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Sillamyae

59-24 N; 27-45 E.
Population: 15,000 (1959 est.)
Administrative: City of republic subordination.
 Located in Yykhviskiy Rayon. Administrative center, Area C.
Economic: Shale-mining center.

Vyrū
(Voru)

57-51 N; 27-00 E.
Population: 15,000 (1959 est.)
Administrative: Town of rayon subordination.
 Administrative center, Vyruskiy Rayon; controls 8 selsoverts.
Airfield: One Class 2 alternate defense base (military).
Economic: Peat-processing enterprises; flax-processing factory; alcohol purifying plant; furniture factory; peat briquette factory under construction.
Education: Industrial tekhnikum.

Vilyandi

58-21 N; 25-34 E.
Population: 14,000 (1959 est.)
Administrative: Town of rayon subordination.
 Administrative center, Vilyandiskiy Rayon; controls one town of rayon subordination (Mustla) and 10 selsoverts.
Economic: Flax-processing industry; small machine building plant; match factory; large fruit and vegetable canning factory; dairy plants; flour mill.
Education: Medical and pedagogical schools.

Valga

57-47 N; 26-02 E.
Population: 13,000 (1959 est.)
Administrative: Town of rayon subordination.
 Administrative center, Valgaskiy Rayon; controls 7 selsoverts.
Military: Hq, U/I AAA Regt 90th Guards. Radar site.
Airfield: One Class 5 (military).
Transportation: Large railroad junction; railroad yards and shops; car repair shop.
Economic: Lumber yard; brickyard; fodder-mixing plant (only one of kind in republic). Liqueur distillery, brewery, meat combine.
Education: Industrial accounting tekhnikum.

Akhtme
(Ahtme)

59-18 N; 27-27 E.
Population: 12,000 (1959 est.)
Administrative: Town of rayon subordination.
 Located in Yykhviskiy Rayon.
Economic: Shale-mining; shale distillation plant (est. 13.3 per cent of USSR capacity for synthetic liquid fuels--137,000 m.t.); planned construction of shale-gas enterprise, with an annual capacity of 400 million cu. m. of gas, to supply gas to Leningrad, Riga, and Estonian towns in NW. One thermal heat and power plant (est. installed capacity: 88,000 kw.). Liquid fuels storage at refinery (est. 15,000 m.t. capacity).

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Rakvere

59-22 N; 26-20 E.

Population: 12,000 (1959 est.)Administrative: Town of rayon subordination.

Administrative center, Rakvereskiy Rayon; controls one town of rayon subordination (Kunda) and 12 selsoverts.

Military: Radar site.Airfield: One Class 3 primary defense base (military).Economic: Linen and tanning center. Timber industry; woodworking. Agricultural machinery plant; leather plant. Starch-syrup factory, distillery, meat combine. Center of agricultural and livestock-raising area; fishing industry, fish combine; silver fox farm.Education: Medical school, pedagogical academy.Kiviyli
(Kivioli)

59-21 N; 26-57 E.

Population: 11,000 (1959 est.)Administrative: Town of rayon subordination.

Administrative center, Kiviylikiy Rayon; controls one urban settlement (Pyussi) and 6 selsoverts. (Urban settlement Kyutteyyu was merged with Kiviyli in December 1958.)

Economic: Shale-mining and processing center.

Shale-chemical combine; shale mine, shale distillation plant (est. 20.8 per cent of USSR capacity for synthetic liquid fuels--217,000 m.t.). Reported uranium ore mine. One thermal power plant (est. installed capacity: 9,000 kw.). Liquid fuels storage at refinery (est. 15,000 m.t. capacity). Center of agricultural and livestock-raising area.

Kingisepp
(Kuressaare)

58-15 N; 22-30 E.

Population: 10,000 (1959 est.)Administrative: Town of rayon subordination.

Administrative center, Kingiseppski Rayon; controls 11 selsoverts.

Military: Possible Hq, U/I Jet Fighter Regt.

Radar site.

Airfield: One Class 5 fighter recovery base (military/civil).Economic: Cellulose and paper combine; furniture factory; wool-processing plant; 2 lumber plants; brickyard. Fishing industry; fish combine, fish refrigeration plant. Center of agricultural and livestock-raising area.

Tapa

59-16 N; 25-58 E.

Population: 10,000 (1959 est.)Administrative: Town of rayon subordination.

Administrative center, Tapaskiy Rayon; controls 2 urban settlements (Aegviydu and Ambla) and 10 selsoverts.

Military: Radar site.Airfield: One Class 2 alternate defense base (military).Transportation: Railroad junction; railroad yards and shops; car repair shop.

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Tapa
(Contd.)

Economic: Reported uranium ore mine and ore concentration plant. Center of agricultural and livestock-raising area.

Yykhvi
(Johvi)

59-22 N; 27-25 E.
Population: 8,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Yykhviskiy Rayon; controls one town of rayon subordination (Akhtme), 2 urban settlements (Sompa and Viyvikonna), and 12 selsovets.
Economic: Center of Estonian shale basin; shale-mining. Oil machinery plant (est. one per cent of USSR capacity for oil-drilling equipment). Reported uranium ore mine. One thermal power plant (est. installed capacity: 6,000 kw.).

Khaapsalu
(Haapsalu)

58-56 N; 23-33 E.
Population: 6,000 (1959 est.)
Administrative: Administrative center, Khaapsalskiy Rayon; controls 10 selsovets.
Military: Hq, U/I Jet Fighter Division. Radar site, antiaircraft installation, guided missile base.
Airfield: One Class 2 primary defense base (military).
Transportation: Railroad terminus.
Economic: Fishing port. Fish combine.
Education: Pedagogical school.
Health: Mud bath resort.

Paldiski

59-20 N; 24-06 E.
Population: 5,000 (1959 est.)
Administrative: Town of rayon subordination.
Located in Keylaskiy Rayon.
Military: Secondary naval base: contains limited logistic and operational support facilities for light surface craft and possibly for limited number of submarines. Hq, 8th Guards Rifle Div; Hq, U/I AAA Regt 8th Guards Rifle Div (both stationed at village of Klooga--6.3 nautical mi. ESE). Radar site, antiaircraft installation, guided missile base.
Airfield: One Class 7 seaplane station.
Transportation: Secondary port 1.1 per cent of Soviet Baltic port capacity).
Economic: Fishing industry. Liquid fuels storage, non-refinery (15,000 m.t. capacity--chiefly for naval use).

Antsla

57-50 N; 26-31 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Antslaskiy Rayon; controls 7 selsovets.
Education: Agricultural tekhnikum.

Elva

58-18 N; 26-25 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Elvaskiy Rayon; controls 11 selsovets.

S E C R E T

Elva
(Contd.) Economic: Vacation resort. Center of agricultural, sugar beet, and flax-growing area.

Kallaste 58-40 N; 27-11 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Kallasteskiy Rayon; controls 7 selsovets.
Economic: Center of agricultural and livestock-raising area. Fishing industry on Lake Peipus; fish combine; dairies.

Kekhra
(Kehra) 59-20 N; 25-20 E.
Population: 3,000 (1959 est.)
Administrative: Urban settlement. Located in Koseskiy Rayon.
Economic: Cellulose and paper plant. One thermal heat and power plant (est. installed capacity: 5,500 kw.).

Keyla 59-18 N; 24-25 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Keylaskiy Rayon; controls one town of rayon subordination (Paldiski) and 7 selsovets.
Economic: Woolen textile mill. Center of agricultural and livestock-raising area.

Kilingi-Nymme 58-09 N; 24-58 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Kilingi-Nymmeskiy Rayon; controls 8 selsovets.
Economic: Center of agricultural and livestock-raising area. Flax factory.

Kokhila
(Kohila) 59-10 N; 24-45 E.
Population: 3,000 (1959 est.)
Administrative: Urban settlement. Located in Raplaskiy Rayon.
Economic: Cellulose and paper mill. One hydro-power plant.

Kokhtla
(Kohtla) 59-22 N; 27-13 E.
Population: 3,000 (1959 est.)
Administrative: Urban settlement. Subordinate to Kokhtla-Yarve City Executive Committee.
Economic: Shale-mining. Paper mill.

Myysakyula 58-06 N; 25-11 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Located in Abyaskiy Rayon.
Transportation: Railroad car repair shop; steam engine house.
Economic: Flax-spinning mill.

S E C R E T

Payde 58-54 N; 25-33 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Paydeskiy Rayon; controls one urban settlement (Yarva-Yani) and 8 selsoverts.
Economic: Road machinery plant; peat works.
Center of livestock-raising area.
Education: Farm mechanization school; trade-cooperative tekhnikum.

Pyłtsama (Poltsamaa) 58-41 N; 25-58 E.
Population: 3,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Pyłtsamaskiy Rayon; controls 9 selsoverts.
Airfield: One Class 5 (military).
Economic: Center of livestock-raising area; winery and fruit-vegetable canning factory; local industry enterprises.
Education: Farm mechanization school.

Abya-Paluoya 58-08 N; 25-20 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement. Administrative center, Abyaskiy Rayon; controls one town of rayon subordination (Myysakyula), one urban settlement (Nuya), and 7 selsoverts.

Kunda 59-30 N; 26-32 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Located in Rakvereskiy Rayon.
Military: Radar site.
Transportation: Minor port. Terminus of spur from Tallin-Narva rail route.
Economic: Cement plant; lumber mills, fishing industry.

Kyardla 59-00 N; 22-44 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Khiumaskiy Rayon; controls 5 selsoverts.
Military: Antiaircraft installation.
Economic: Center of agricultural and livestock-raising area; fishing.

Lavassaare 58-31 N; 24-22 E.
Population: 2,000 (1959 est.)
Administrative: Located in Area E. Subordinate to Pyarnu City Executive Committee.
Economic: Center of peat-mining area; large mechanized peat enterprise.

Loksa 59-35 N; 25-42 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement. Located in Kharyuskiy Rayon. Former administrative center of abolished Loksaskiy Rayon.
Transportation: Minor port; shipyard.

S E C R E T

Loksa
(Contd.)
Economic: Brickyard; local industry enterprises.
Center of agricultural and livestock-raising area.
Education: Motor transport and highway school.

Maardu
(Mardu)
59-25 N; 25-02 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement. Located in Kharyuskiy Rayon.
Economic: Phosphorite deposits; important chemical combine; produces superphosphate fertilizers; sulfuric acid (est. 0.2 per cent of USSR capacity).

Mustve
58-51 N; 26-55 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Mustveskiy Rayon; controls 10 selsoverts.
Transportation: Docks on Lake Peipus.
Economic: Center of fishing, agricultural, and livestock-raising area.

Otepya
58-04 N; 26-30 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Otepyaskiy Rayon; controls 5 selsoverts.
Economic: Center of agricultural and livestock-raising area; dairy; brickyard (under construction, 1957).

Ryapina
58-07 N; 27-27 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement. Administrative center, Ryapinaskiy Rayon; controls 12 selsoverts.
Economic: Center of agricultural and livestock-raising area. Milling and woodworking industries; paper mill.
Education: Fruit-vegetable processing tekhnikum.

Sindi
58-24 N; 24-39 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Located in Area E. Subordinate to Pyarnu City Executive Committee.
Economic: Woolen mill; fish hatchery.

Tootsi
58-34 N; 24-49 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement. Located in Vyandraskiy Rayon.
Economic: Center of important peat-cutting area; peat briquette factory.

Tyuri
(Turi)
58-48 N; 25-26 E.
Population: 2,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Tyuriskiy Rayon; controls 6 selsoverts.

S E C R E T

Tyuri
(Contd.)
Transportation: Railroad junction.
Economic: Paper-milling center.
Education: Agricultural tekhnikum.

Yarvakandi
58-54 N; 24-50 E.
58-52 N; 24-45 E.
58-47 N; 24-49 E.
Population: 2,000 (1959 est.)
Administrative: Urban settlement apparently with
3 population centers. Located in Vyandraskiy
Rayon.
Economic: Combine for production of prefabricated
stores, silos, furniture, glass tubes for food
and chemical industries, auto mirrors, and
decorative glass. Bread plant.

Aegviydu
59-17 N; 25-37 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
Tapaskiy Rayon.

Ambla
59-11 N; 25-51 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
Tapaskiy Rayon.

Kukruse
59-23 N; 27-22 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Subordinate to
Kokhtla-Yarve City Executive Committee.
Economic: Shale-mining.

Likhula
58-42 N; 23-49 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Administrative
center, Likhulaskiy Rayon; controls 7 selsovs.
Economic: Center of fishing, agricultural, and
livestock-raising area.

Mustla
58-14 N; 25-52 E.
Population: 1,000 (1959 est.)
Administrative: Town of rayon subordination.
Located in Vilyandiskiy Rayon.
Economic: Oil-pressing plant and distillery.

Myaryama
58-55 N; 24-26 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Administrative
center, Myaryamaskiy Rayon; controls 5 selsovs.
Economic: Wood-finishing shop. Center of agri-
cultural and livestock-raising area.

Narva-Yyesuu
(Narva-Joesuu)
59-27 N; 28-02 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Subordinate to
Narva City Executive Committee.
Transportation: Port facilities.
Economic: Fishing industry.
Health: Seaside health resort.

S E C R E T

Nuya 58-06 N; 25-34 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
 Abyaskiy Rayon.

Pyarnu-Yagupi 58-37 N; 24-30 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Administrative
 center, Pyarnu-Yagupiskiy Rayon; controls 5
 selsoverts.
Economic: Center of agricultural and livestock-
 raising area; dairy plant.

Pyussi 59-22 N; 27-03 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
 Kiviyliskiy Rayon.
Transportation: Railroad station.
Economic: Shale-mining.

Rapla 59-00 N; 24-47 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Administrative
 center, Raplaskiy Rayon; controls one urban
 settlement (Kokhila) and 8 selsoverts.
Economic: Brickyard; local industry enterprises;
 fruit and berry nursery. Center of agricultural
 and livestock-raising area.

Sompa 59-21 N; 27-21 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
 Yykhviskiy Rayon.
Economic: Shale-mining.

Suure-Yani 58-33 N; 25-27 E.
Population: Town of rayon subordination.
 Administrative center, Suure-Yaniskiy Rayon;
 controls one urban settlement (Vykhma) and 7
 selsoverts.
Economic: Center of agricultural and livestock-
 raising area; dairy.

Tamsalu 59-10 N; 26-06 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
 Vyayke-Maryaskiy Rayon.
Economic: Lime works.

Tyrva 58-00 N; 25-55 E.
Population: 1,000 (1959 est.)
Administrative: Town of rayon subordination.
 Administrative center, Tyrvaskiy Rayon; con-
 trols 7 selsoverts.

Viyvikonna 59-19 N; 27-42 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in
 Yykhviskiy Rayon.
Economic: Open-face shale mine; 3 new quarries
 mechanized in 1958.

S E C R E T

Vyandra 58-40 N; 25-04 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Administrative center Vyandraskiy Rayon; controls 2 urban settlements (Tootsi and Yarovakandi) and 6 selsovets.

Vykhma 58-38 N; 25-33 E.
 (Vohma) Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in Suure-Yaniskiy Rayon.
Military: Radar site.
Airfield: One Class 5 fighter recovery base (military).

Yarva-Yani 59-02 N; 25-53 E.
Population: 1,000 (1959 est.)
Administrative: Urban settlement. Located in Paydeskiy Rayon.

Yygeva 58-47 N; 26-24 E.
Population: 1,000 (1959 est.)
Administrative: Town of rayon subordination.
Administrative center, Yygevaskiy Rayon; controls 8 selsovets.

S E C R E T

ADDENDUM

A decree of the Presidium of the Estonskaya SSR Supreme Soviet, which was broadcast from Tallin on 26 January 1959, pronounced the abolishment of 13 rural rayons in the republic. Following are lists of the abolished rayons, their affected urban areas, the new subordination of the urban areas, and the number of selsoviets incorporated into rayons which have been retained.

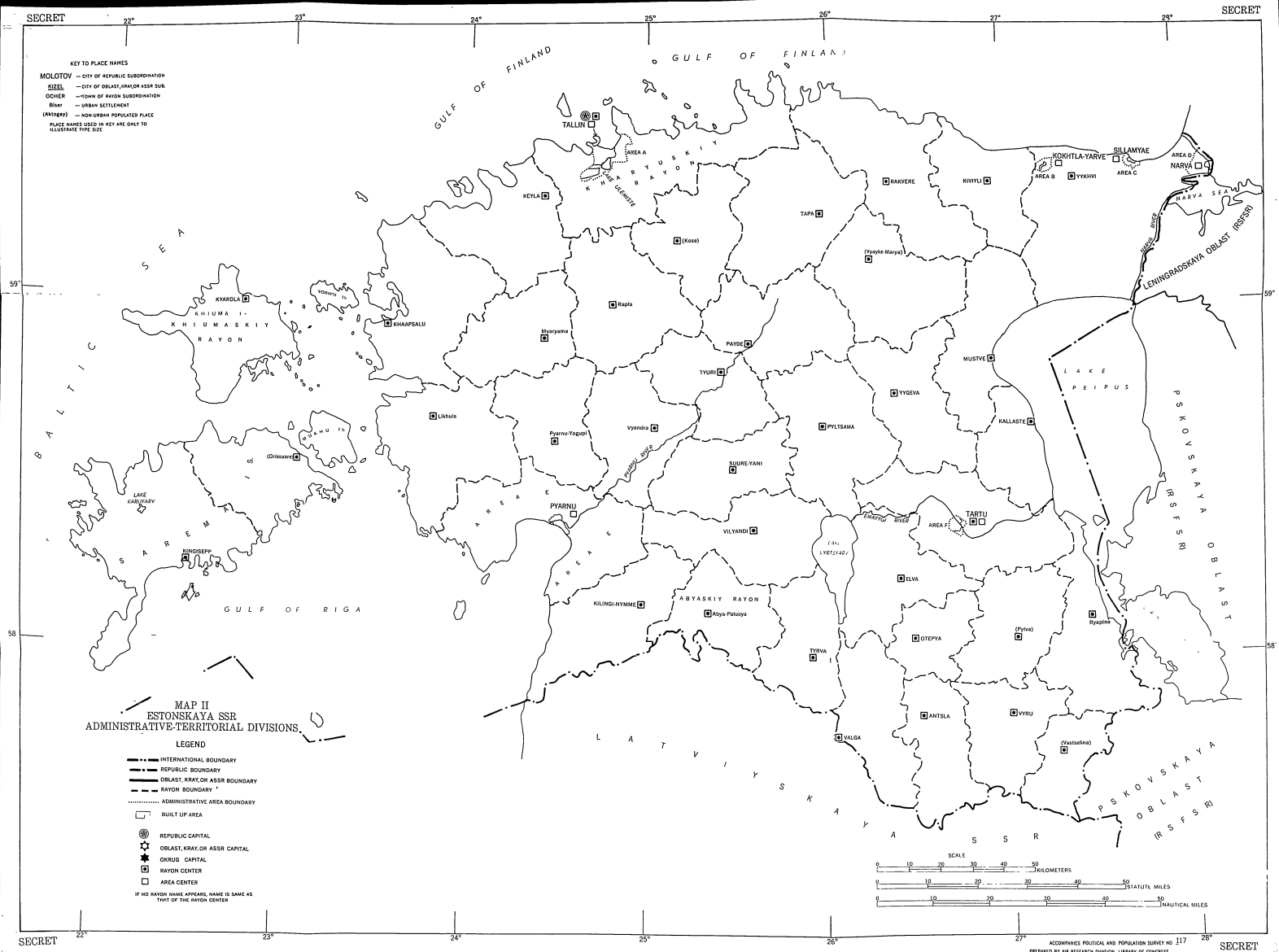
<u>Abolished Rayon</u>	<u>Urban Areas Transferred</u>	<u>New Subordination of Urban Areas</u>
Antslaskiy	Antsla	Vyruskiy Rayon
Kallasteskiy	Kallaste	Tartuskiy Rayon
Kilingi-Nymmeskiy	Kilingi-Nymme	Abyaskiy Rayon
Kiviyliskiy	Kiviyl, Pyussi	Kokhtla-Yarve City Exec. Committee
Koseskiy	Kekhra	Kharyuskiy Rayon
Mustveskiy	Mustve	Yygevaskiy Rayon
Orissaareskiy	--	--
Otepyaskiy	Otepya	Elvaskiy Rayon
Pyarnu-Yagupiskiy	Pyarnu-Yagupi	Pyarnu City Exec. Committee
Suure-Yaniskiy	Suure-Yani	Vilyandiskiy Rayon
	Vykhma	Pyitsamaskiy Rayon
Tyrvaskiy	Tyrva	Valgaskiy Rayon
Tyuriskiy	Tyuri	Paydeskiy Rayon
Vastselinaskiy	--	--

The territory of Orissaareskiy Rayon was absorbed by Kingiseppskiy Rayon, and that of Vastselinaskiy Rayon by Vyruskiy and/or Ryapinaskiy Rayons.

S E C R E T

The number of selsoverts which have been incorporated from the abolished rayons into the remaining rayons or which have been subordinated to cities of republic subordination is shown below:

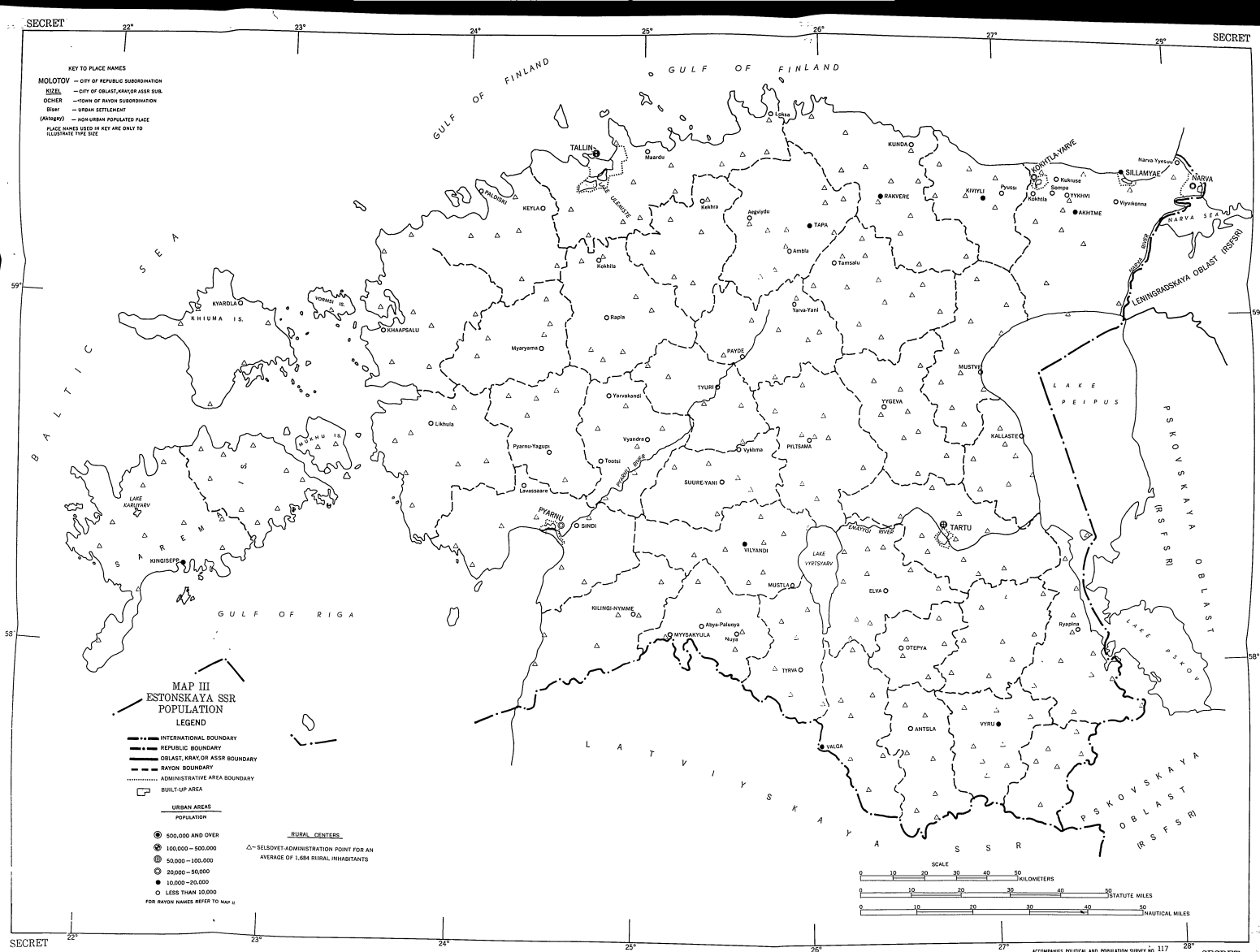
<u>Rayon</u>	<u>Number of New Selsoverts</u>	<u>Rayon</u>	<u>Number of New Selsoverts</u>
Abyaskiy	6	Tartuskiy	7
Elvaskiy	2	Valgaskiy	7
Kharyuskiy	5	Vilyandiskiy	6
Kingiseppskiy	11	Vyruskiy	12
Myaryamaskiy	3	Yygevaskiy	8
Paydeskiy	3	Yykhviyskiy	1
Pyltsamaskiy	3	Kokhtla-Yarve City	
Pylvaskiy	3	Exec. Committee	4
Rakvereskiy	3	Pyarnu City Exec.	
Raplaskiy	4	Committee	3



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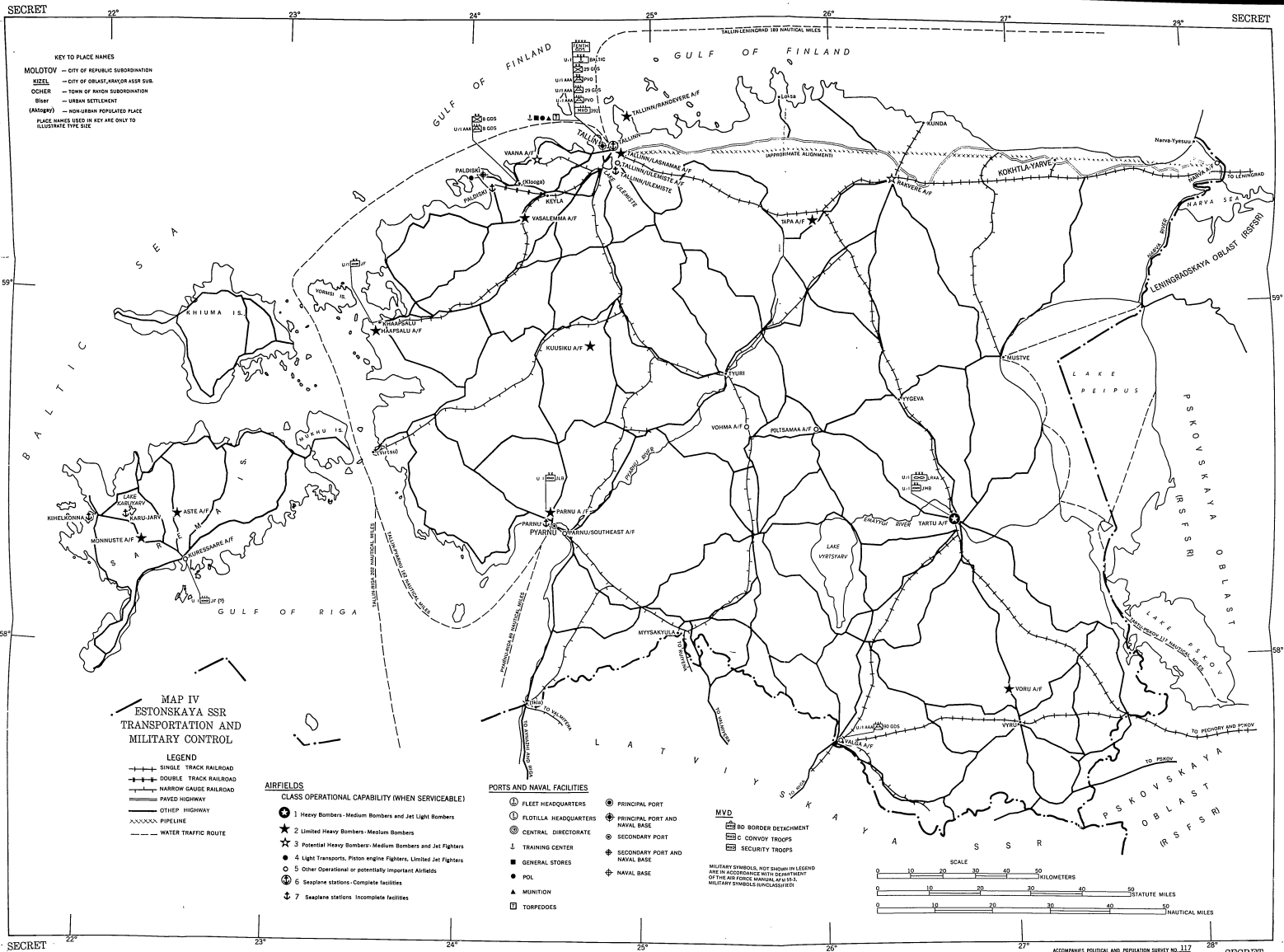
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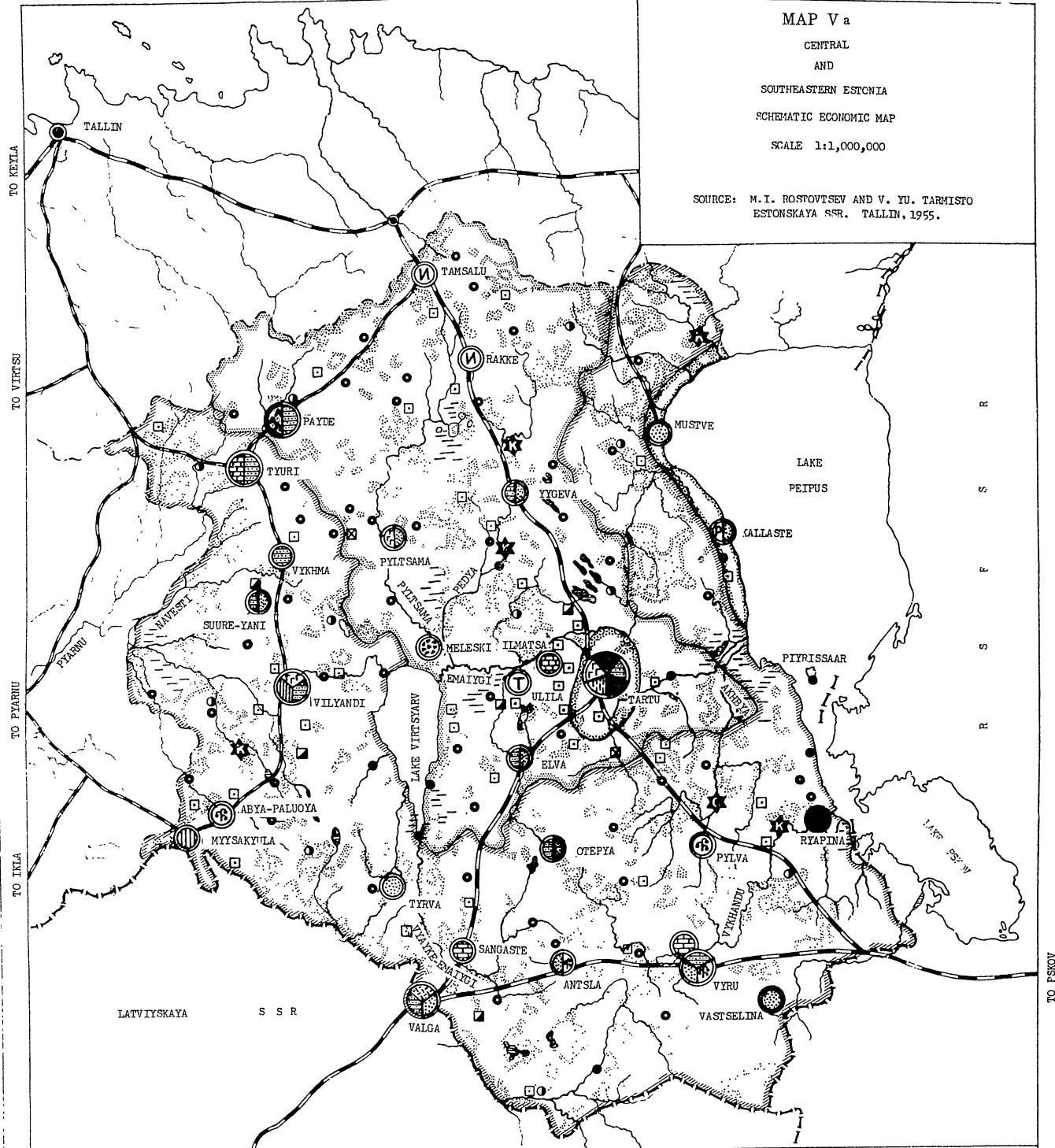
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MAP V a

CENTRAL
AND
SOUTHEASTERN ESTONIA
SCHEMATIC ECONOMIC MAP
SCALE 1:1,000,000

SOURCE: M. I. ROSTOVITSEV AND V. YU. TARMISTO
ESTONSKAYA SSR. TALLIN, 1955.



INDUSTRIAL POINTS

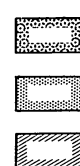


SECTORS IN THE INDUSTRIAL CENTERS
ARE GIVEN WITHOUT CONSIDERATION
OF THEIR RELATIVE SIGNIFICANCE

- BRANCHES OF INDUSTRY
- INSTRUMENT BUILDING
 - ROAD MACHINE BUILDING
 - PEAT
 - PAPER AND WOODWORKING
 - BRICK
 - PRODUCTION OF LIMF
 - GLASS
 - FLAX
 - LEATHER-SHOE
 - MILK-MEAT

- VEGETABLE AND FRUIT-CANNING
- FISH
- PRODUCTION OF FODDERS
- PRIMARY PROCESSING OF FLAX
- VARIOUS SMALL-SCALE
- LIVESTOCK POINTS
- FISH RECEIVING AND PROCESSING POINTS
- DAIRIES
- STATE FARMS
- MILK-MEAT
- MILK-MEAT WITH ANIMAL-BREEDING FARMS
- FRUIT AND VEGETABLES

SPECIALIZATION OF AGRICULTURE



LIVESTOCK-RAISING FOR WHOLE MILK
PRODUCTION, HOG-RAISING, RELATIVELY
LARGE CULTIVATION OF VEGETABLES AND
POTATOES

MILK LIVESTOCK-RAISING, HOG-RAISING AND
PRODUCTION OF SUGAR BEETS

MILK LIVESTOCK RAISING, HOG-RAISING
AND PRODUCTION OF FLAX

ELECTRIC POWER STATIONS

- STATE RURAL HYDROELECTRIC STATIONS
- INTER-COLLECTIVE FARM
HYDROELECTRIC STATIONS

LARGEST FORESTS

SECRET

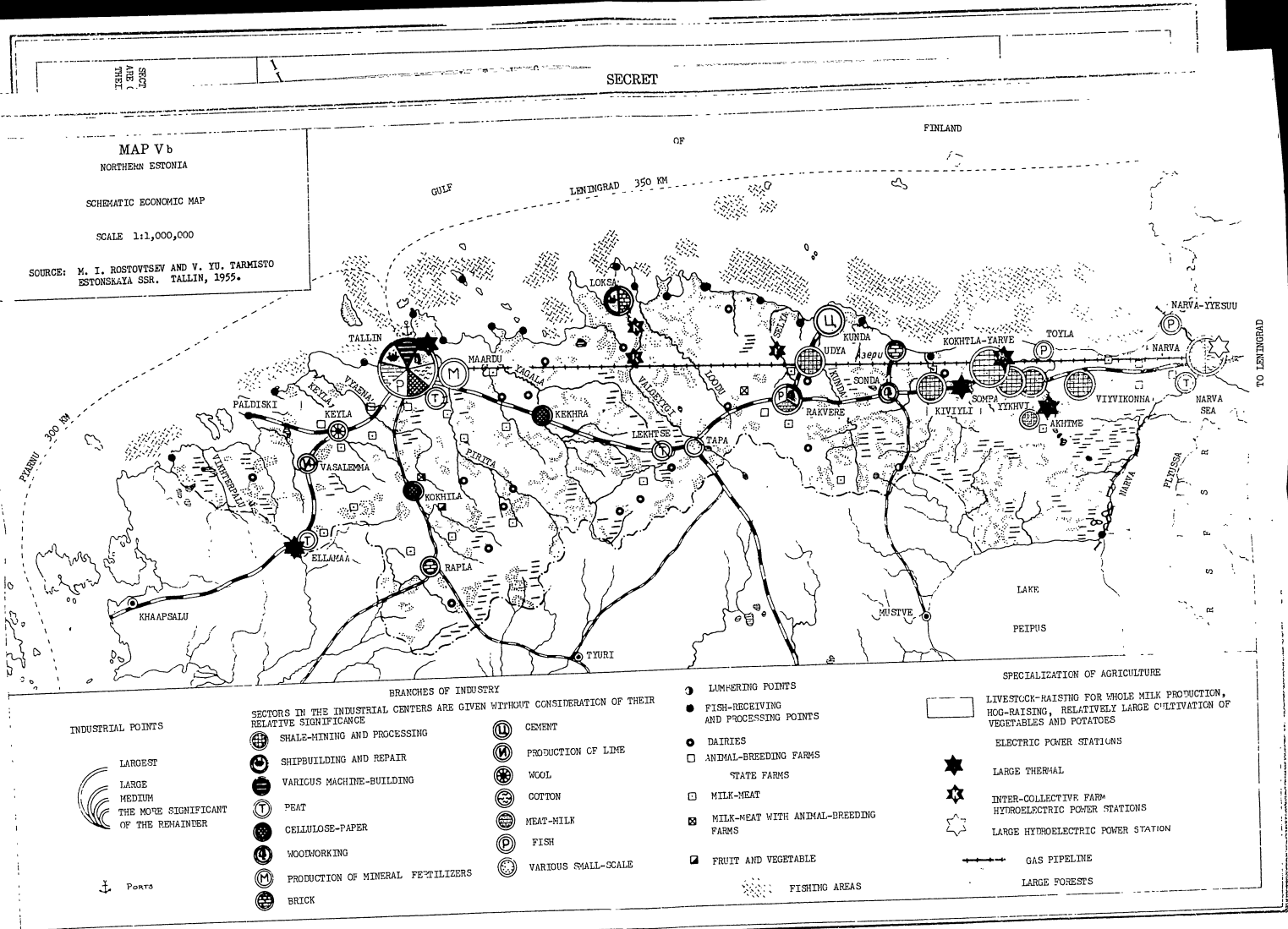
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MAP Vb

NORTHERN ESTONIA

SCHEMATIC ECONOMIC MAP

SCALE 1:1,000,000

SOURCE: M. I. ROSTOVTSSEV AND V. YU. TARMISTO
ESTONSKAYA SSR. TALLIN, 1955.

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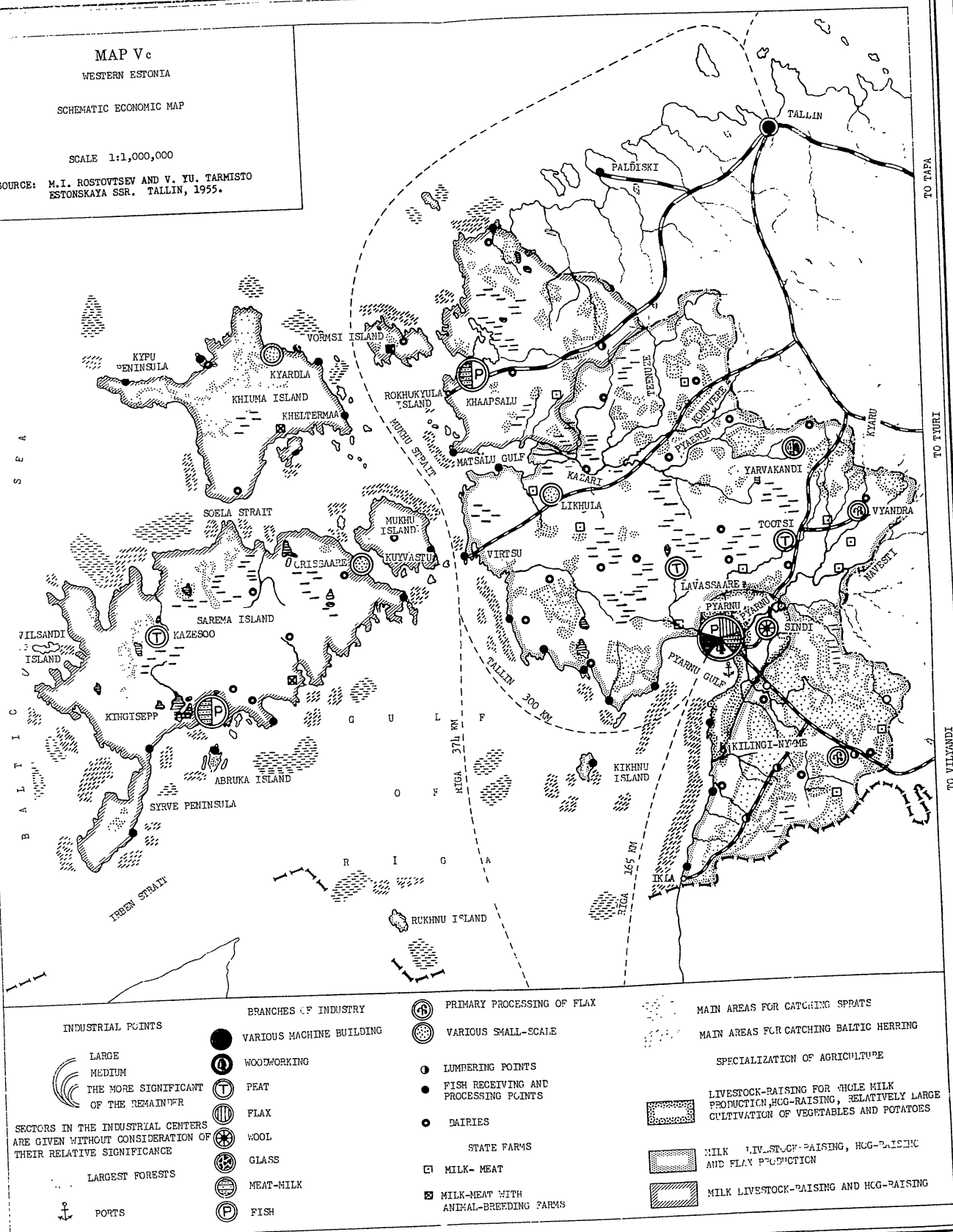
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MAP Vc

WESTERN ESTONIA

SCHEMATIC ECONOMIC MAP

SCALE 1:1,000,000

SOURCE: M.I. ROSTOVTSSEV AND V. YU. TARMISTO
ESTONSKAYA SSR. TALLIN, 1955.

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